Consumer Attitudes towards Push Notifications
As a Marketing Tool to Trigger Impulse Buying Behaviour in Smartphone Users

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Abstract

This thesis takes the reader on an exploratory journey into the development of impulse purchasing behaviour stemming from the increased usage of web-connected smartphones. At an unprecedented rate, consumers are able to access businesses online, twenty-four hours a day, seven days a week, at their own convenience, without restrictions other than a connection to the World Wide Web. This mobile phenomenon has effectively pushed the commercial market to new boundaries and simultaneously created new possibilities for retailers to reach out to consumers by providing seamless and innovative marketing solutions on portable devices to a fast-growing market segment. This emergent technology and the trends it brings with it, demands special attention to the analysis of consumer behaviourism. As of date, academia has put relatively little emphasis on the evolution of impulse purchasing behaviour as a product of smartphone usage. In this paper, the authors investigate the attitude of local consumers towards so-called ‘push notifications’, whose purpose is to stimulate an impulsive behaviour in the smartphone user. The results of this study show that multiple factors in relation to push notifications on smartphones play an important part in shaping the attitude of consumers and furthermore can elicit impulse buying behaviour. These factors often bridge each other and are at times mutually dependent.

Keywords:
Marketing
Entrepreneurship
Consumer behaviour
Mobile commerce
Push notifications
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Retail
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1. Introduction

The following chapter explores the development of retail into e-commerce as well as the changes in consumer behaviour connected to the topic of the paper. The aim of the authors is to dive into an analysis of the emerging trend of product purchasing via the Internet and furthermore the development within the retail sector due to the increased usage of smartphones. Mobile devices have made it possible for consumers to reach out to companies at any given time resulting in increased consumer knowledge power. In turn, this development has increased the possibilities for companies to reach consumers conveniently and opened a variety of marketing strategies as consumers are increasingly reminded of brands and product offerings. This paper focuses on consumer attitudes towards a specific and newer marketing tool related exclusively to mobile devices. In the background of this chapter, the authors provide a detailed description of the topic discussed and present factors, which are further augmented in the problem discussion. The following chapter debouches into the research question, the limitations and delimitations of the research, the purpose of the paper, as well as the gap in academic research available.

1.1 Background

The background chapter presents the topics relevant to the thesis, which prove to be the foundation of the paper. First, the authors investigate the evolution of retail into e-commerce as a result of technological advances such as the Internet and smartphones. The consumer of today is defined in connection to the rise of technology and the impact of technology on impulse purchasing behaviour. Finally, this chapter presents the push notifications feature in smartphones as the main research area of the paper and the attitudes of consumers towards such marketing practices.

1.1.1 The Evolution of Retail: Technological Advances and E-commerce

The importance of analysing the impulse purchasing behaviour of consumers has been investigated in marketing literature for over six decades (Clover, 1950). When this notion was first introduced, focus lay on this specific behaviour in relation to in-store
purchasing from a retail perspective (Clover, 1950). Retail is a marketplace where a wide variety of goods are exchanged between seller and individual consumer. The mediums through which products and services are sold have developed through time to include boutiques, supermarkets, malls, and so forth. The increased connectivity and the contextual relevance of the modern society has ushered retailing into a new era (Ramaswamy, 2013). The digital revolution has effectively blurred, or rather bridged, the divide between the offline and online worlds by allowing instant and easy access (Ramaswamy, 2013; Piotrowicz & Cuthbertson, 2014). The offline world contains traditional bricks-and-mortar stores that we have all become accustomed to. The online world, however, has created a virtual representation of stores where consumers can access organizations and conduct shopping activities at their own convenience. In essence, this new dimension can be seen as an extension to the classical storefront (Ramaswamy, 2013).

For the last several decades we have seen an unprecedented growth in technology, its usage, and efficiency. Technological advances have led to the possibility of innovations, not least within the retail industry. In the year 2000, 6.8 percent of the global population was connected to the Internet (The World Bank, 2015). A decade and three years later, 38.1 percent of the global population joined this movement and it is expected that by the year 2020 over 65.8 percent of the global population will have access to the World Wide Web (The World Bank, 2015; Nordic eCommerce, 2013). Eurostat, an institution that provides statistical data commissioned by the European Union, conducts extensive analysis of various categories, including Internet usage, within 28 European countries. According to statistics provided by Eurostat, 47 percent of European individuals between the ages of 16 and 74 had access to the Internet from their homes in the year 2007 (Eurostat, 2015a). A mere six years later, this number had risen to 72 percent of the European population (Eurostat, 2015a). In Sweden alone, 59 percent of the population had access to the Internet in 2002, a number that has grown to 93 percent as of two years ago (Eurostat, 2015a). These statistics paint a lively picture: the extraordinary expansion of individuals connected to the Internet, not only on a global scale, is increasing like never before with no indications of stagnation within the coming years. The emergence of the Internet, and its capabilities, triggered rapid change within the retail industry and allowed for new and innovating ways of reaching out to different customer segments (Fulgoni, 2014). Furthermore, the Internet, and
technologies related to it, has offered organizations the possibility of overcoming geographic barriers allowing for easy expansion into a variety of markets (Fletcher, Bell & McNaughton, 2004). The rise of the Internet has led to the development of online retailing, commonly referred to as electronic commerce or e-commerce, where traditional consumer constraints such as time and physical space have been eliminated (Madhavaram & Laverie, 2004). This new shopping dimension has proven to be the most crucial challenger to traditional bricks-and-mortar retailing (Ramaswamy, 2013).

Electronic commerce is defined as the process of purchasing goods and services between consumers and organizations via electronic transactions (Eurostat, 2012). From a technological point of view this process involves the exchange and interaction, or communication, between individuals and businesses through the Internet or other online communication networks (Eurostat, 2012; Fletcher, Bell & McNaughton, 2004). Out of 220,000 individuals and 150,000 households from 28 European countries surveyed, 41 percent stated that they used the Internet within the last three months to perform online purchasing activities (Eurostat, 2015b). Likewise, the usage of electronic commerce mediums for online purchasing purposes has also grown immensely among Swedish consumers (Findahl, 2014). In 2014 an estimated 85 percent of the Swedish population above 18 years of age stated that they use e-commerce, or related online channels, to conduct purchasing activities of goods and services (Findahl, 2014). Alongside the United Kingdom, Denmark, and Norway, Sweden is ranked as one of the highest users of online shopping services with 8 out of every 10 Swedish nationals having at some point purchased products or services online (Findahl, 2014).

In the digital world, there is a seamless interaction between online devices and physical stores, resulting in the consumer’s experience of the brand as smooth and unified (Piotrowicz & Cuthbertson, 2014). The arrival of newer and more efficient technology, in particular the smartphone, has accelerated the advancement of e-commerce as a tool for organizations. In technological terms, the smartphone is classified as a multipurpose information appliance whose users are offered a range of information from videos, to data, to images, and so forth (Arbore, Graziani & Venturini, 2013). Multipurpose information appliances provide the user omnipresent services and access at the individual’s convenience as well as hedonic and utilitarian functions (Arbore et al., 2013; Venkatesh, Thong & Xu, 2012). The smartphone as a technological device has quickly become the most popular and widely used multipurpose information appliance
for individual and business use (Arbore et al., 2013). As stated by Srivastava and Misra (2015) the smartphone, in its most rudimental form, made its first appearance in the early 90’s. Through technological advances and constant adaptations, the smartphone increased in usage in the business context and within special segments between 2000 and 2006 (Srivastava & Misra, 2015). The era of mass consumption of smartphones began in 2007 and this third generation version of the device is still growing in popularity to this day (Srivastava & Misra, 2015). As is common with technology, future generations of the smartphone will include updated and more advanced functions (Srivastava & Misra, 2015). The increased application of smartphones, and similar portable web connected devices, has had and will continue to have perceptible impacts on growth and productivity, not to mention businesses in general (Kapoor, 2014). Mobile devices have the ability to create accessibility which enables the consumers to access products and information remotely at a quicker pace and at more convenience. As an outcome of the growth of technology and e-commerce, the usage of smartphones for purchasing purposes is increasing, becoming a major tool for remote product purchasing. In the Swedish context, 73 percent of the population use smartphones and 69 percent of these make use of the Internet through devices (Svensk Handel, 2013; Findahl, 2014). Researchers have seen an increase in online shopping activities amongst Swedish consumers and, according to Svensk Handel (2013), almost 17 percent of the Swedish population uses a smartphone for online purchasing purposes. It is therefore obvious that the importance of marketing channel integration is growing within the retail sector as a direct result of the impact of mobile technologies and trends in consumerism (Piotrowicz & Cuthbertson, 2014). Piotrowicz and Cuthbertson (2014) argue that this evolution is an impact of social media and growing diversity in customer requirements, further changing the roles of classical bricks-and-mortar stores. At the same time, it is a balance of personalization and privacy (Piotrowicz & Cuthbertson, 2014; Sutanto, Palme, Tan & Phang, 2013).

1.1.2 Defining the Consumer: The Postmodernist View

When defining a consumer it is of importance to look at the aspects of how individuals understand and interact with the marketing system. According to Solomon (2009), marketers like to categorize consumers in terms of age, gender, income or occupation. These types of categories are examples of the descriptive characteristics of a population
or demographic. However, some marketers prefer to gain an in-depth understanding of certain information, commonly classified under the *psychographic* category (Solomon, 2009). This classification refers to knowledge on a much deeper level about a person’s lifestyle or personality and can therefore provide valuable insight (Solomon, 2009). Consumers are constantly influenced by other individuals in their surroundings and this interaction can have an effect on purchasing decisions (Solomon, 2009). These interactions transmit extensive product information, including recommendations both positive and negative, and can be more influential than any advertisement (Solomon, 2009). As noted by Solomon (2009), an individual consumer is a participant of a larger society, where certain cultural values or strong beliefs on how the world should be structured are shared. In addition to this, a consumer is also part of smaller groups, or *subcultures*, where individuals share common features such as dialect, age, preferences, or even just by being participants of the same fan club (Solomon, 2009). Information such as this is vital to marketers, as the process of targeting consumers can vary across segments. But are all consumers influenced by each other irrelevant of personal preferences? To answer this question it is worth witnessing studies on identity signalling such as the one conducted by Berger and Heath (2007). It has been suggested in prior research that consumers have an inherent drive to differentiate themselves from others within their surroundings (Berger & Heath, 2007). Most consumers have high needs for uniqueness and therefore search for preferably unique products (Berger & Heath, 2007). But, as Berger and Heath (2007) state, these divergences from mass consumption trends are more related to certain product domains than others, and therefore vary. Albeit, consumers tend to reassure their self-identity and uniqueness; certain possessions held by the masses blur the sense of particular identity (Berger & Heath, 2007; Arbore & Soscia, 2009). Innovations and new products, in particular those that can form a personal bond with the user, have strong identity signalling possibilities, although can discourage adoption at a later stage (Arbore & Soscia, 2009). For the purpose of this research, the smartphone as an innovative and new technology fits the criteria mentioned in similar studies, and it is the opinion of the authors that this technology has not yet reached a stage of stagnation due to its impressive continued expansion rate.
To better understand the consumer, his impulses and behaviour, it is important to clearly define the individual within a specific context; in this case the modern and technologically advanced society we are participants of. According to Amine and Smith (2009), the archetypal modern consumer is an individual connected and familiar with the online world, aware of trends, in touch with other individuals at anytime and anywhere, seeking a unique meaning and benefit through the purchasing of products and services, cutting across the segmented boundaries of residence or income status (Amine & Smith, 2009). This postmodern consumer is extremely affluent and has been regarded as a ‘celebrity’ of sorts, who enjoys the flexibility and freedom of reinvention of identity and lifestyle alike (Amine & Smith, 2009). Amine and Smith (2009) argue that the postmodernist view recognizes that consumers are in constant search of new identities and desires to peak experiences both of which can only be satisfied through purchase and usage of a range of products. This differs from other views where satisfaction is based on the reason behind the consumption of a good not with the actual act of consuming the good itself (Folkes, 1988).

1.1.3 Consumer Behaviour and Impulse Purchasing
The evolution of consumer behaviour with regards to technology driven innovations is pushing for drastic changes within the marketplace and further pushing for the development of new marketing possibilities (Piotrowicz & Cuthbertson, 2014). The most significant aspect of this change is to manage the expectations of consumers (Nordic eCommerce, 2013). This development increases the pressure on retailers and places a heavy burden on organizations. To meet the expectations of consumers requires the retailer to offer seamless solutions between marketing platforms (Piotrowicz & Cuthbertson, 2014). Furthermore, the retailer must provide outstanding round-the-clock services through all the channels it may use to market its products and as a consequence influence the consumer into making a purchasing decision. A thorough understanding of consumer behaviour is vital to organizations as it provides an understanding of how buyers consume and use particular products (Blackwell, Miniard & Engel., 2001; Ajzen & Fishbein, 1980). As previously stated, it is apparent that the quick rise in the daily usage of e-commerce and advances in mobile devices has had a great impact on the shopping behaviour of consumers. With the rise of technology, the consumer of today has become accustomed to the use of devices such as the smartphone for both practical
and hedonic reasons (Venkatesh et al., 2012). Although, as discovered by Venkatesh et al. (2012), hedonic motivation is still influenced by the age, gender, and experience with technological devices of the user.

Ever since the first exchange of goods and services between consumer and seller began, buyers have had some form of freedom to accept or reject product offerings (Bennett & Kassarjian, 1972). It should therefore not be a surprise that marketers have always had an interest in investigating the behaviour of consumers (Bennett & Kassarjian, 1972). Progressively marketers have become increasingly interested in the adaptation of marketing to become more consumer-oriented with the end goal of meeting and satisfying consumer needs (Bennett & Kassarjian, 1972). Blackwell et al. (2001, p. 6) define consumer behaviour as “activities people undertake when obtaining, consuming, and disposing of products and services.” In a similar manner, Schiffman and Kanuk (2004, p. 8) define consumer behaviour as “the behaviour that consumers display in searching for, purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs.” To investigate consumer behaviourism is to undertake a study of why people buy and to observe how consumers make decisions based on the resources available to them (Blackwell et al., 2001; Schiffman & Kanuk, 2004). Knowledge of these factors will allow for the development of strategies employed by marketers to influence consumers (Blackwell et al., 2001). More recently, consumer behaviour has been seen as a field of study where focus lays on consumer activities (Blackwell et al., 2001). The focus has therefore shifted onto the analysis of consumption, why and how people consume in addition to why and how consumers buy (Blackwell et al., 2001). This provides a “broader conceptual framework than buyer behaviour does because it includes issues that arise after the purchase process occurs” (Blackwell et al., 2001, p. 7–8).

Amongst other behaviours exhibited in consumers, planned purchasing occurs when the consumer has a high rate of involvement with the product, although it can appear in lower involvement purchases too (Blackwell et al., 2001). Another form of consumer behaviour relates to the whimsical manner consumers are prone to exhibit. Early marketing literature defined impulse buying as any purchase that a shopper makes that has not been planned (Stern, 1962). Therefore, it is a sudden and immediate purchasing decision that does not stem from a pre-shopping intention to either buy a particular
product or to perform a defined purchasing act (Beatty & Ferrell, 1998). Later, Beatty and Ferrell (1998), and similarly Jeffrey and Hodge (2007), argued that this particular behaviour emerges not simply as an unplanned action but as a product of the sudden, and often irresistible, urge to buy. Rook (1987, p. 191) clearly defined impulse purchasing as “when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately” and “is prone to occur with diminished regard for its consequences.” Rook and Fisher (1995) state that impulse purchasing is mostly driven by stimulus factors and may intervene between the incentive to buy and the actual purchasing action. Due to the stimuli oriented nature of impulse purchasing, e-commerce marketers constantly strive to be effective in triggering consumer’s impulse purchasing behaviour with the aim of increasing sales and profit. Amongst other forms, this can be achieved through incentive components featured on online channels and are an integral part of an organization's sales strategy. E-marketers often implement stimuli tactics such as discounts and other promotional offers to trigger impulse purchasing behaviour (Dawson & Kim, 2009). According to Xu and Huang (2014), online shoppers may have no knowledge about a specific product and may exhibit no explicit intention of purchasing the product. However, stimuli such as discounts and offers, or other incentive based features, may assist in the triggering of an impulse purchasing decision (Xu & Huang, 2014). In their study, Jeffrey and Hodge (2007) concluded that the more time a consumer spent on a website prior to being subjected to an impulse item; the more likely he or she was to perform an impulse purchase. Furthermore, according to Verhagen and van Dolen (2011), about 40 percent of online expenditures are a result of impulse buying. This is triggered by the easy access to products online, the relative easiness of online purchasing, the lack of social pressures, and the absence of delivery efforts by the online shopper (Verhagen & van Dolen, 2011). The trust prompted between the buyer and the e-commerce retailer is another factor that can trigger this behaviour (Svensk Handel, 2013). The trustworthiness the retailer exhibits can be achieved by including factors such as contact details and safety certifications shown with well-known symbols (Svensk Handel, 2013). Information available about the retailer and the right payment offers are considered necessary factors for an e-commerce site to provide in order to retain consumers and persuade them to shop. Furthermore, how well-known the brand is for the consumer, e-certifications, the variety of payment methods offered, product tracking possibilities, positive reviews on comparison sites, recommendations from friends and family, effective shipping terms,
and social media awareness are also factors that have a direct effect on impulse purchasing (Svensk Handel, 2013).

Today marketers have the ability to use a wide range of marketing tools to stimulate purchasing decisions in consumers. One example of this newer, emergent marketing tool is push notifications. The development of push notifications quickly expanded with the arrival of upgraded smartphones. Commonly, a push notification allows a smartphone application (or software program) to inform the user of new messages without the need of having the application running (Taylor, 2014; Nations, 2015). Such notifications often appear as regular text messages on the user's smartphone screen displaying a 'badge' with the applications icon and can even be viewed when the device is locked (Nations, 2015). Many applications offer the possibility of push notifications features and can therefore range from general alerts such as events on a gaming application to new product offerings from an e-retailer via email (Nations, 2015). By using such features businesses are able to send planned and customized messages to a large number of consumers or to smaller and more targeted consumers, depending on what they wish to transmit to the consumers. This allows for the categorization of consumers depending on the type of device they use, their location or their level of engagement (Taylor, 2014). Push notifications are therefore a one-way communication for where marketers can reach out to consumers directly (Sluis, 2014). On the reverse, users are able to limit and control the amount, or scale, of push notifications received from each application, adapting them to their own needs. A study conducted concluded that 75 percent of European smartphone users received push notifications from the applications on their device and 26 percent stated that they received multiple push notifications per day (Sluis, 2014). However, some statements have been made regarding push notifications being perceived as intrusive and annoying and can risk the loss of customers (Taylor, 2014; Sluis, 2014).

1.2 Problem Discussion

The influence of the World Wide Web has grown at astounding rates over the last decade. With it, the global population has found a new sense of interconnectivity and self-identity. It has been proposed that the modern segmentation of consumers is no longer applicable and that the consumer of today has morphed into what is defined as
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the postmodernist consumer (Amine & Smith, 2009). This consumer is concerned with reinvention and the unique meaning and benefit of purchasing and consuming a range of products (Amine & Smith, 2009). Furthermore, postmodernism suggests that consumers eagerly welcome new forms of consumption (Amine & Smith, 2009). In addition, tech savviness is a prerequisite of the modern, connected consumer (Venkatesh et al., 2012). Technological advances have given way for evolutions within electronic appliances and other related fields. A product of the technological advances of modern society is the online world, accessed through web-connected devices. Another crucial product is digital devices, such as the smartphone, which have the ability to connect to the web. These types of devices allow the user to access the Internet remotely at the convenience of the user over an extensive geographic area (Venkatesh et al., 2012). The increased accessibility and availability of this immense virtual world of information in our back pockets has effectively shifted how we as consumers purchase. Mobile devices have effectively linked the online and offline worlds into one by allowing instant and easy access (Ramaswamy, 2013; Piotrowicz & Cuthbertson, 2014). The offline world contains physical, traditional bricks-and-mortar stores that we have all become accustomed to. The online world is a virtual representation of stores, where consumers can access organizations and conduct shopping activities; essentially an extension to the storefront (Ramaswamy, 2013). Consumer purchasing impulsiveness, a product of consumer behaviour, has been studied for decades in relation to in-store purchasing (Clover, 1950; Madhavaram & Laverie, 2004). However, today it is of increasing importance for marketers and academics to look towards the effect of technology on impulse purchasing within the e-commerce context. One could draw the simple hypothesis that if, consumers are affected by impulse purchasing whilst shopping in physical stores, either by promotional deals, the strategic placement of certain products or other forms of incentives, then this behaviour must translate over to the virtual world where marketers make use of more specific impulse buying triggers. The multitude of online triggers employed by companies is extensive and, according to Verhagen and van Dolen (2011), consumers are influenced by stimuli in combination with easy access to products and easy purchasing methods. Just a few years ago however, despite the smartphone’s wide dispersal and impressive acceptance, Wilken and Sinclair (2009, p. 428) stated that the smartphone as an advertising medium “[...] is a ‘sleeper’ [...] with an enormous potential which is still far from being realized.” Technology such as the smartphone
brings with it an arsenal of positive and beneficial marketing methods, however, it has been proposed that it may also have an adverse and negative effect on consumers if not used wisely (Izquierdo-Yusta, Olarte-Pascual & Reinares-Lara, 2014; Chong, 2013). Little research has been conducted by academia to discern the attitude of consumers towards proactive marketing practices, such as push notifications, whether the general attitude is positive or negative. In addition, the increased usage of smartphone technology and the convenience and accessibility it brings with it, may have an effect on impulse purchasing behaviour exhibited in mobile commerce consumers.

1.3 Research Question
What is the attitude of consumers towards push notifications, a marketing tool used to trigger impulse purchasing behaviour in smartphone users?

1.4 Purpose Statement
The purpose of this paper is to undertake an investigation of consumer behaviour with regards to the rise of technological advances within the marketplace. More specifically, the paper focuses on mobile commerce retail through the usage smartphones as a new means of purchasing products online. The authors aim to investigate the specific phenomena of impulse purchasing in connection with the convenience and accessibility generated by mobile devices. The end goal of the paper is to inspect the attitude of consumers towards push notifications on smartphones that alert the user of new product offerings, discounts, advertisements, and so forth, and furthermore may elicit impulse purchasing behaviour in the online shopper.

1.5 Research Gap
To the best of our knowledge, and after extensive research of various academic databases, it is our opinion that academia in general has, as of date, put little emphasis on the particular subject discussed in this paper. Other researches investigating the dynamic of online retailing and impulse purchasing, such as those conducted by Madhavaram and Laverie (2004), Jeffrey and Hodge (2007), Verhagen and van Dolen (2011), and Xu and Huang (2014), have also expressed their concern with the lack of
previous studies within this particular field. Madhavaram and Laverie (2004, p. 59) state “[...] researchers have not come to a consensus on the conceptualization of impulse purchasing [thus] unresolved issues exist in the literature preventing a clear understanding and resulting in inconsistent operationalization of the construct.” In their own study on the factors influencing impulse buying on online shoppers, Jeffrey and Hodge (2007, p. 369) maintain that “limited work has been done on impulse purchases in an online environment and any results with respect to impulse purchases were inconclusive.” More recently, Verhagen and van Dolen (2011, p. 320) affirm “[...] there has been little research into the influence of the online stores on impulse buying behaviour” and that “[previous studies] have failed to provide insight into situations where decision-making is spontaneous, unreflective, dominated by emotions, and immediate; that is, impulse buying.” When researching the particular matter of consumer responses to text message advertising on mobile phones, Drossos, Giaglis, Vlachos, Zamani and Lekakos (2013, p. 105) state “[...] so far only a few studies have examined critical factors determining [the] success [of text advertising] and evaluating consumer behaviour.” However, studies about the changes in consumer behaviour as a result of the increased reliance of consumers on technological devices and studies on the impulse purchasing behaviour exhibited in online shoppers, such as the ones referred to above, are fairly abundant. The availability of previous research pertaining to impulse buying in relation to smartphones is further limited within the particular matter of the attitude of e-commerce consumers towards newer marketing tools such as push notifications.

1.6 Limitations and Delimitations of the Study

Several concerns arise within the limitations and delimitations of the following research. For this investigation, the authors have chosen to limit the research to an analysis of consumer behaviour, more specifically the aspect of impulse buying in connection with the rise of mobile commerce. The study is undertaken as an investigation from the perspective of consumers in order to in-depth investigate the outcome of this emerging trend. The paper later focuses on the investigation of impulse purchasing and consumer attitudes towards push notifications. Due to the limited time frame provided for this study and furthermore the scarce availability of resources, the study targets local consumers found within the confines of Linnaeus University in
Växjö, Sweden. This factor, and the approach chosen to the study, may have an adverse effect on the generalizability of the investigation. In the case of this paper, the term *retail*, and its variations, are taken to encompass all forms and mediums of virtual retail business apart from physical retailing mentioned in the introductory chapter and unless otherwise stated. On account of the focused purpose of this paper, the authors wish to gain detailed information regarding the attitude of consumers and therefore this study omits any company or organisational analysis. Focus lays solely on smartphones, irrelevant of their type or brand, and therefore excludes other potable web connected devices such as laptops and tablets. The terms *mobile device, mobile phone, handheld device, cell phone, cellular phone*, and their respective variations, refer to smartphones exclusively unless otherwise stated. The particular concern of *push notifications* includes any form of smartphone application that a marketer may use. As a result, any notifications presenting themselves on smartphone screens, irrelevant from which application they originate from, are considered to fall under this category. Any other marketing practices not explicitly related to push technology on smartphones are excluded from this investigation. In addition, as this paper is written within the fields of marketing and entrepreneurship, the authors are not concerned with detailing the exact technological processes behind applications, push notifications, operating systems, and other technological jargon, other than to provide the reader with a basic understanding of the mechanisms behind those relevant to the research.
2. Theory

The following theoretical chapter discusses different theories relevant to the topic of this paper. The authors introduce mobile commerce as a subset, or evolution, of electronic commerce due to the advances in handheld technology and explain the basics behind proactive marketing of which push notifications are a component. Based on previous studies, such as the ones conducted by Zhang et al. (2013), Drossos et al. (2013), Chong (2013), and Barwise and Strong (2002) to name a few, the remainder of the chapter attempts to outline determinants related to m-commerce and push marketing later evaluated with the use of a focus group. Finally, the authors present a visual and textual summary of this chapter to aid the reader in a comprehensive understanding of the determinants investigated in this paper.

2.1 Consumer Behaviour: Attitudes and the Theory of Reasoned Action

Since the dawn of commerce, we as consumers have had freedoms to reject or accept product offerings (Bennett & Kassarjian, 1972). The behaviour of consumers has been described as the activities people undertake to obtain, consume, and dispose of goods and services (Blackwell et al., 2001). In an overly simplistic manner; to reject or accept a product offering is a behaviour that a consumer can exhibit. When looking to consumer behaviour, we look at the reasons behind purchasing and observe how people make decisions based on the resources available to them (Blackwell et al., 2001). By understanding the processes behind such actions, firms can develop strategies that may influence consumers into performing certain actions (Blackwell et al., 2001). According to Bennett and Kassarjian (1972), firms must look towards satisfying the needs of each market segment since each segment has its own set of needs. Broadly speaking, consumer behaviour therefore involves the analysis of a vast variety of factors. For this research, understanding the attitudes, and in essence the nature of humans is vital. Human attitude is largely considered to be the most basic construct leading to behaviour (Bennett & Kassarjian, 1972). Attitudes, unlike beliefs, cannot be neutral and are, according to Bennett & Kassarjian (1972, p. 76), “insistent, dynamic, and stirred-up [...] not neutral; they may be unusually positive or extremely negative.” Belief, or opinion, is the emotionally neutral cognition that an individual holds about a certain object.
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(Bennett & Kassarjian, 1972). Both notions hold hand in hand as one cannot form an attitude without also holding a belief (Bennett & Kassarjian, 1972). Schiffman and Kanuk (2004) affirm that all of us have an immense number of attitudes towards everything from products to physical stores. According to them, “an attitude is a learned predisposition to behave in a consistently favourable or unfavourable way with respect to a given object.” Attitudes play a crucial part in the understanding of consumer behaviour (Schiffman & Kanuk, 2004).

In the book *Understanding Attitudes and Predicting Social Behaviour*, Ajzen and Fishbein (1980) discuss concepts used to explain, predict, and influence the behaviour of humans in social settings. It is worth mentioning that at the time when this particular book was published advances in technology where not as abundant or as efficient as we have seen in the past two decades. Nonetheless, Ajzen and Fishbein (1980) provide a detailed analysis of both attitudinal and behavioural sciences that should not be overlooked. First introduced by Fishbein in 1967, the *theory of reasoned action* based itself on the assumption that “human beings are usually quite rational and make systematic use of the information available to them” (Ajzen & Fishbein, 1980, p. 5). In direct contrast to more of the contemporary research previously mentioned in this paper, such as those conducted by Rook (1987), Rook and Fisher (1995), Beatty and Ferrell (1998), and Jeffrey and Hodge (2007) to name a few, Ajzen and Fishbein (1980, p. 5) state that they do not agree with the notion that the social behaviour exhibited in humans is “controlled by unconscious motives or overpowering desires” nor that such behaviour is characterized as “thoughtless.” In comparison to Rook (1987), who stated that impulse buying, an act which in itself can be viewed as a human behaviour, is a “sudden, often powerful and persistent urge to buy something immediately,” Ajzen and Fishbein (1980, p. 5) affirm that humans “consider the implications of their actions before they decide to engage or not engage in a given behaviour” and it is this assumption that is the underlying basis for the theory of reasoned action. As a result, Ajzen and Fishbein (1980) do not shy away from stating that predicting behaviours is not difficult although the correspondence between an intention and an actual act may not always be perfect. The theory of reasoned action divides a person’s intention into two motives, one relating to personal nature and another relating to the influence of social surroundings (Ajzen & Fishbein, 1980). The authors categorize the former determinant as *attitude* and the latter as *subjective norm* (Ajzen & Fishbein, 1980;
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Pavlou & Fygenson, 2006). According to Ajzen and Fishbein (1980) a person’s behaviour is the result of intention. In turn, intention is determined by the elements mentioned above; attitude and subjective norm (Pavlou & Fygenson, 2006). Attitudinal beliefs assess the probability of behaviour’s consequences (Pavlou & Fygenson, 2006). In other words, if belief that a given behaviour will lead to positive outcomes, then the attitude of that person in exhibiting that particular behaviour is greater compared to when a given behaviour is perceived to lead to negative outcomes (Ajzen & Fishbein, 1980). Subjective norms, mentioned here above within the context of social influence, relate to a person’s belief that his or hers social surroundings either want (or do not want) the person to exhibit a particular behaviour (Ajzen & Fishbein, 1980). From a more contemporary point of view such as the one presented in this paper, the latter motive of social influence (i.e. subjective norm) could be eradicated in accordance with the findings of Jeffrey and Hodge (2007) and Verhagen and van Dolen (2011), both of which concluded that the lack social pressures of online shoppers cannot influence a consumer’s behaviour. This notion is applicable both within the context of mobile commerce and electronic commerce. Ajzen and Fishbein (1980) also cover consumer behaviour in detail by investigating the underlying decisions, which affect consumers in purchasing goods and services. According to Ajzen and Fishbein (1980, p. 149) consumer behaviour “is [a] human action involving a choice among various alternatives, and there is little reason to assume that novel and unique processes will have to be invoked in order to account for such action.” More recent studies in contemporary consumer behaviour, such as the ones discussed extensively in this paper, would disagree with this overly simplistic statement. However, as is consistent with other research within consumer behaviour, Ajzen and Fishbein (1980) determine that the concepts provided in an effort to understand consumer behaviour are further dependent on a variety of factors.

2.2 Impulse Purchasing

Amongst the various behaviours consumers can exhibit, we are able to determine two behaviours related to purchasing applicable to both online and offline shopping dimensions; on one hand a detailed and thought out purchasing process and on the other hand a more spontaneous and erratic purchasing process. Generally, when consumers have a high rate of involvement with a product, planned purchasing takes place.
(Blackwell et al., 2001). This requires the consumer to process great amounts of information and search for added information relating to the product (Behe et al., 2015). When searching for low-involvement products, consumers tend to have slacker criteria before purchasing the product and are not prone to search for added information regarding it (Behe et al., 2015). It would thus be fair to say that purchasing impulsivity is generally more applicable to products of low-involvement compared to products of high-involvement. A statement like this can find academic support, as is the case in Kannan et al.’s (2001) study, which concluded that mobile consumers are largely prone to exhibit impulse buying behaviour when subjected to low-involvement products. Impulse buying transcends physical in-store purchasing as online shoppers are also known to exhibit this behaviour (Jeffrey & Hodge, 2007; Verhagen & van Dolen, 2011). With the arrival of mobile commerce, impulsive buying has become easier due to the accessibility and ubiquity generated by wireless communication devices (Drossos et al., 2013; Zhang et al., 2013). General constraints applicable to e-commerce, such as the boundaries of geographical location, have been effectively eliminated in the mobile commerce dimension (Chong, 2013). Essentially, m-commerce has made it possible for consumers to both browse and purchase products from literally any location and at their own convenience. According to studies conducted by Beatty and Ferrell (1998) and Jeffrey and Hodge (2007), this sudden and immediate buying behaviour does not originate from the intention of the shopper to purchase a particular product or product category but from a sudden craving. Verhagen and van Dolen (2011) were able to observe that nearly half of all transactions occurring online stem directly from impulse buying. Similarly to in-store purchasing, online impulsive buying is largely dependent on stimuli that affect the intentions of the consumer. Marketers make use of various tactics to trigger this behaviour in online shoppers by featuring sales promotions, discounts, delivery options, and so forth (Dawson & Kim, 2009). Xu and Huang (2014) argue that it is common for online shoppers to show signs of impulsivity as they may not have set out to buy a specific product. Thus, various factors play a large part in eliciting this sort of behaviour in online consumers.
2.3 Mobile Commerce and Push Marketing

This paper previously introduced and explained the concept of electronic commerce, or e-commerce, as an established practice amongst retailers across the globe, having effectively provided a new dimension to traditional retailing (Chong, 2013; Ramaswamy, 2013). In this chapter the authors explore an even further dimension; the transition of e-commerce into mobile commerce, or m-commerce, as an extension of the former and as a product of the astounding progresses within wireless multipurpose appliances (Zhang et al., 2013; Chong, 2013). Through m-commerce, consumers are able to perform transactions through the World Wide Web at anytime, anywhere, eliminating the boundaries of geographical location (Chong, 2013). According to Wilken and Sinclair (2009), mobile media, and especially handheld devices, are seen and heard everywhere. These devices have become a major part of the daily lives of billions of people across the globe and are considered to be highly personal instruments (Wilken & Sinclair, 2009; Chong, 2013). The m-commerce dimension is growing at such an astounding rate that it is expected to have an equal or even larger impact on businesses than its predecessor (Chong, 2013; Khalifa, Cheng & Shen, 2012). The growing popularity of m-commerce is, according to Zhang et al. (2013, p. 31), attributed to the “proliferation of smartphones” and “to the availability of a high speed mobile Internet, or ubiquitous and fast mobile access to the Internet” with mobile Internet being the “cornerstone of m-commerce.” Some researchers differ as to the degree to which they consider m-commerce as an extension or subset of e-commerce (Chong, 2013; Zhang et al., 2013; Khalifa et al., 2012). These differences in opinion arise as some studies regard m-commerce as having an intrinsically different interaction with its users, applicable business models from an organizational perspective, and user patterns to name a few (Chong, 2013; Cao, Lu, Gupta & Yang, 2015).

As reported by Cao et al. (2015, p. 54), m-commerce uniqueness is found in its “ubiquity, convenience, localisation, instant connectivity and personalization.” Likewise, Zhang et al. (2013) identify various features, such as location tracking and location-based services that are exclusively unique to m-commerce. One of these features, which directly relates to the scope of this paper, is referred to as proactive marketing. This form of marketing makes m-commerce distinctive compared to its predecessor. The impressive rate of acceptance and its wide dispersal across the global
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population has proven the smartphone to be a new platform for content and in combinations with proactive marketing has given leeway for both push- and pull marketing methods (Wilken & Sinclair, 2009; Unni & Harmon, 2007). Using pull advertising, marketers are able to send information to a smartphone at the request of the user whereas push advertising requires the consent of the user to receive mass messages over a period of time (Wilken & Sinclair, 2009; Unni & Harmon, 2007). Wilken and Sinclair (2009) state that the latter approach of push advertising is common amongst text message marketers promoting a product, where the user subscribes and agrees to receiving information and promotional offers from a company. This particular form of marketing has the risk of backfiring by flooding the user with undesired material, as it is often perceived as annoying and intrusive with the potential of overwhelming the user (Taylor, 2014; Sluis, 2014; Wilken & Sinclair, 2009). Concerns over some of the negative features of push marketing have even prompted legislation, with European law requiring companies to acquire the user’s permission to send marketing related material via proactive marketing practices on handheld devices (Wilken & Sinclair, 2009). The practice of push advertising, such as text messages via cellular phones, has been recognized as an important form of product promotion and is regarded as one of the most popular marketing tools due to its adaptability to all types of mobile devices thus reaching a wide range of consumers (Drossos et al., 2013). With the increased prominence of the smartphone as a feasible advertising channel, it has become of great importance to understand how and to what extent this practice influences the frame of mind of the consumers (Drossos et al., 2013). Thus this requires an understanding of consumer behaviour, although, as Drossos et al. (2013) point out, little emphasis has been made on the inspection of critical factors that determine the success of push marketing as an effective marketing tool.

2.3.1 Push Notifications

Over the years marketers have employed various approaches to market products and appeal directly to individual consumers (Taylor, 2014). As Taylor (2014) states, many of these tactics such as post, electronic mails, and brochures, are effective but none provide situational information of the consumer in real time. According to Taylor (2014), employing push notifications reaches the attention of the mobile device user immediately and can instigate impulse purchasing behaviour. In technological terms a
A push notification is the delivery of information or alert signals from a software application to a handheld device without the specific request of the user (Ticklye, 2014). Push notifications therefore differ from other practices used in pull-marketing as they do not require the user to request for content. The way in which push notifications are sent and received is technologically complex. In a simplified manner, a push notification is generated by a remote server on which the software application is running on. Secondly, this server notifies the notification server of the operating system on the smartphone. Lastly, the notification server of the operating system delivers the notification received from the server on which the software application is running to the user's smartphone device (Ticklye, 2014). Remote servers therefore push specific content to smartphone application users (Warren, Meads, Srirama, Weerasinghe & Paniagua, 2014). This process is shown in Figure 1 below.

![Figure 1: The delivery process of a push notification from a remote server to a smartphone application](Rigollet & Kumlin, 2015)

The primary purpose of a push notification is to get the user, or the targeted consumer, back on the mobile phone or back on to the specific application (Kannan, 2013). This method transmits messages to the consumer in the most direct and targeted way possible (Kannan, 2013; Taylor, 2014). Push technology delivers timely updates to smartphone users and is the building block for pervasive mobile applications (Warren et al., 2014). Ultimately push technology notifies a user of an event, advertisement or promotion and notifications can be delivered even though the specific application on the smartphone is not running (Moore, 2014). Warren et al. (2014) affirm from prior experiments that smartphone users must only be connected to an application 50 percent of the time to receive up to 90 percent of application notifications in a timely manner.
and that push services currently account for billions of daily notifications to smartphone users. Therefore, this technology has the ability to reach a large number of consumers in a timely manner. Taylor (2014) states that push notifications have not yet been used for advertising purposes. Warren et al. (2014), however, provide a counter-argument for such as statement noting that a factor in the increased usage of push notifications stems from the growth of this technique for marketing purposes. Wilken and Sinclair (2009) regarded it as a ‘sleeper’ marketing practice with great beneficial implications for companies. This technologically driven innovation is currently pushing the opportunities for marketing to new boundaries as it allows marketers to get closer to the customer. The targeting of specific consumers in a very direct and precise way is achieved through the accessibility generated by smartphones as most users keep the device close at hand (Wilken & Sinclair, 2009; Barwise & Strong, 2002).

2.4 Factors Influencing Consumer Attitudes

The following factors mentioned below are discussed within the context of push notifications on smartphones.

2.4.1 Appealing to Rationality or Emotions
The appeals of an advertising message can be divided into rational and emotional, where the former basis itself on the factual information gathered from the message and the latter on the formulation of positive emotions which contribute to the development of brand personality (Drossos et al., 2013). In their study, Drossos et al. (2013) assumed that consumers subjected to the advertised messages of a new brand were keener on receiving rational information relating to either objective or utilitarian product information as opposed to messages appealing to emotions. This assumption was also dependent on the involvement level of the consumer with the product category. In effect, the quality of information may aid the consumer in understanding a promotional product better as such messages may include facts about pricing, product features, and so forth. In contrast, Drossos et al. (2013) assumed that when subjected to the advertised messages of an established brand, and thus familiar with the utilitarian functions of the product, consumers may rather prefer to receive information appealing to their emotions.
2.4.2 Localisation
In their respective studies, both Cao et al. (2015) and Zhang et al. (2013) were able to identify the characteristics that make m-commerce a unique marketing tool. The features of being able to conduct m-commerce transactions anywhere at any time (i.e. ubiquity and immediacy), to be able to reach consumers instantly, to use proactive marketing, and the built-in user positioning technology in smartphones, all give m-commerce a level of differentness compared to e-commerce which is generally bound to the geographical location of the online shopper (Zhang et al., 2013; Cao et al., 2015; Chong, 2013). The ability for companies to locate consumers is critical in their successful targeting of potential consumers. As Drossos et al. (2013, p. 110) state “mobile advertising belongs to the class of context-aware applications because it identifies the context within which the individual user is operating.” Advertising to specifically targeted consumers therefore is heavily reliant upon the context within which the consumers are located. According to Drossos et al. (2013, p. 110) the ability to strategically position marketing related material where purchasing behaviour can be influenced “[is] one of the most interesting opportunities that mobile commerce has to offer.” Such a specific targeting is achieved through the user positioning technology found in smartphones and allows for the localisation users (Zhang et al., 2013). It is therefore the ability to track the exact geographic location of the smartphone user (Cao et al., 2015).

2.4.3 Consumer Involvement with Product Advertised
Drossos et al. (2013) examined the effect of product involvement on the attitude of m-commerce users towards push marketing advertisements on mobile devices. In their study they divided consumers’ purchasing decisions into two categories: on the one hand relying on cognitive factors and on the other hand basing itself upon affective factors (Drossos et al., 2013). Affective factors generally relate to sensory stimulation whereas cognitive factors lean towards utilitarian needs and product performance (Drossos et al., 2013). Kannan, Chang, and Whinston (2001) stated that mobile consumers were prone to exhibit impulse purchasing behaviour towards products of low-involvement compared to high-involvement products. A high-involvement product generally requires the consumer to search for added information, process information related to it in greater detail, and make use of stricter criteria before purchasing as
opposed to low-involvement products (Behe, Bae, Huddleston & Sage, 2015). Drossos et al. (2013) hypothesized that when subjected to high-involvement products, the mobile context “is likely to negatively affect attitudes […] due to [push marketing’s] inherent limitation in conveying a sufficient amount of information.” Their study concluded that wireless consumers exhibited negative attitudes towards high cognitive involvement products and positive attitudes towards those products of cognitive low-involvement. When looking at affective products of low- and high-involvement, Drossos et al. (2013) hypothesized that low affective involvement products would lead to positive attitudes towards an advertisement. However, their study concluded that when subjected to products of high affective involvement, the consumers formed favourable and positive attitudes towards the advertisement (Drossos et al., 2013).

2.4.4 User Consent and Privacy

Concerns over the issue of user privacy with regards to m-commerce are generally regarded as the single most important factor in its continued usage and adoption amongst smartphone users (Chong, 2013; Zhang et al., 2013). As a relatively new medium, consumers are increasingly concerned over issues relating to privacy and security, or lack thereof, when shopping through handheld devices (Chong, 2013). According to Chong (2013, p. 28) “security features such as antivirus software and firewalls are still not common on mobile phones when compared to personal computers.” In addition, m-commerce has the ability to collect more detailed information about the consumer, such as his or hers location, and “[…] is more personal as a mobile phone is generally used by only one user, thus creating a higher risk of threats to privacy” (Chong, 2013, p. 28). This critical issue, according to Zhang et al. (2013), stems from three factors. Firstly, consumers making use of m-commerce are more easily identifiable and the risks of personal data access such as social relationships, user location, lifestyle, and behaviour patterns are greater (Zhang et al., 2013). The gathering of personal data is generally done without the user's consent and can be collected anywhere at any time (Zhang et al., 2013). Furthermore, Zhang et al. (2013, p. 33) state that the ability for companies to collect personal information in combination with other m-commerce features such as instant connectivity and user location “[…] is a double-edged sword.” In their study, Zhang et al. (2013, p. 33) affirm that “[…] on one hand, this means a gold opportunity to m-commerce vendors or
marketers to offer more effective mobile service or precise target marketing to make
profits; on the other hand, this also represents an ultimate challenge to consumers’ informational privacy.” Secondly, Zhang et al. (2013, p. 33) argue that the regulatory environment behind m-commerce “is not mature” and that if the market becomes saturated, marketers will find regulatory loopholes to make use of practices “[…] such as locational tracking and online activity pattern collection” without user consent. Lastly, as is similarly stated by Chong (2013), smartphones are “inherently less secure than their wired desktop or laptop computers due in part to their limited bandwidth, memory, and processing capabilities which make conventional data encryption and security software not suitable to be installed on smartphones” (Zhang et al., 2013, p. 34). As a result, smartphones are at a higher risk of being unlawfully accessed by third parties. As push marketing largely makes use of pervasive applications, security is an area of great concern (Warren et al., 2014). However, in addition to concerns over security, the issue of permission, or rather user consent, to receive marketing related material via push marketing practices on smartphones is a topic of concern. To obtain the user’s unambiguous consent to receive advertisements is paramount in shaping the consumer’s attitude towards the medium (Barwise & Strong, 2002; Drossos et al., 2013). Barwise and Strong (2002) observed in their own study on text message advertising that “obtaining consumers’ explicit permission to receive push adverts means they generate a much better response than would otherwise be the case.” According to their study, push advertisements sent without permission are in the best case simply ineffective and in the worst case can cause serious harm to brand equity as it is regarded as an intrusion on a person’s personal space (Barwise & Strong, 2002). In line with Barwise and Strong’s (2002) findings, Izquierdo-Yusta et al. (2014, p. 365) affirm that “in a mobile setting […] data privacy is vulnerable to advertising campaigns, such that people who receive marketing messages without their consent likely grow more annoyed.” Therefore, the danger of spamming or overflowing the smartphone user with unsolicited material can lead to irritation and possibly harm the brand itself (Barwise and Strong, 2002).

2.4.5 Notification Content
Adequate and relevant content formulation of advertisements through smartphones is a factor that will influence the attitude of the consumer towards the notification.
According to Barwise & Strong (2002, p. 22 – 23) “consumers will respond well to [advertisements] that grab their attention” and that “the [advertisements] must be relevant.” The formulation of credible marketing notifications, such as providing the consumer with quality arguments and rational appeal, will lead to a positive attitude towards an advertisement as opposed to those that do not provide such content (Drossos et al., 2013). This applies to both high- and low-involvement products. As the cell phone is regarded as a personal medium, the context of the messages received must be relevant to the target audience (Barwise & Strong, 2002). Failure to do so may lead to negative reactions from the smartphone users. Therefore, the credibility of an advertisement will have an effect, whether positive or negative, on the consumer’s attitude (Drossos et al., 2013). According to Drossos et al. (2013, p. 109), argument quality is defined “as the valence of thoughts evoked by an argument [and] may influence consumer attitudes.” Referring to previous studies, Drossos et al. (2013) assert that consumers form notions about the strengths and weaknesses of arguments, forming positive thoughts when exposed to strong arguments and negative thoughts when exposed to weak arguments. The accuracy, timeliness, and usefulness of information are crucial determinants of quality and should be appropriately employed when making use of mobile marketing (Drossos et al., 2013).

2.4.6 Frequency of Notifications

As has been previously mentioned throughout this paper, the matter of intrusiveness is an important aspect to consider, with the number and frequency of push advertisements received being an element of concern. In their study on text message advertising, which serves the same purpose as contemporary push notifications, Barwise and Strong (2002) claimed that up to three notifications, or advertisements, per day was a reasonable amount noting that younger segments in particular were susceptible to receive a larger amount. Izquierdo-Yusta et al. (2014, p. 365) argue that “perhaps the misuse of [mobile advertising] by companies – such as sending out advertising on a massive scale, without prior segmentation – leads consumers […] to refuse to even open the message.” Therefore there is a direct link between the frequency of notifications a smartphone user may receive from a retailer and his or hers attitude towards the notifications. The risk of sending an excessive amount of notifications may result in irritation and prompt the user to discontinue usage (Barwise & Strong, 2002).
2.4.7 Incentives

Barwise and Strong (2002) were able to determine that there was a positive correlation between incentives and the willingness of participants to receive push marketing related material. In their study on attitudes towards mobile advertising, Tsang, Ho, and Liang (2004) argued that wireless marketing must be personalized to some degree. According to their study, the implementation of an incentive “provides specific financial rewards to individuals who agree to receive promotions and campaigns” (Tsang et al., 2004, p. 68). Tsang et al. (2004) concluded that incentives increased the respondents willingness to receive mobile advertising material and “significantly affected how and when the respondents read the message.” Similarly to regular in-store purchasing, stimuli tactics, such as incentives, through online mediums have the ability to evoke impulse purchasing behaviour in consumers (Dawson & Kim, 2009). Xu and Huang (2014, p. 1300) argued that sales promotion tactics “are one of the strongest tools to trigger impulse buying for both online and offline shoppers.” However, Xu and Huang (2014) stated that offline shoppers are subjected to external cues that trigger such behaviour whereas impulsivity in online shoppers is largely possible through sales promotions. Push notifications, and other push marketing related features via mobile phones, could therefore instigate the user to impulsively purchase products. In addition, pushing messages to users with an incentive connotation may increase their willingness to continue receiving such promotional material effectively eliciting a positive attitude in the consumer.

2.5 Summary of Theoretical Chapter

This chapter has presented the various factors which the authors of this paper intend to investigate deeper. In order to create a deeper understanding of the scope of this paper, this chapter has covered theories regarding consumer behaviour, mobile commerce, push advertising, and impulse buying. The first part processes the psychological factors that influence consumer behaviour and leads to a broader understanding of how consumers behave, how they form attitudes, and what these attitudes convey. Secondly, this chapter presents mobile commerce as new dimension for retailing with the ability of tapping in to a growing number of consumers and introduces the concept of push marketing. The technological advances in wireless communication devices such as the smartphone have created a new platform for the marketers to reach out to consumers in
a precise and targeted way by effectively pushing material directly to smartphone users. In addition, this chapter presents the rudimentary technological process of push notifications as a component of push marketing. This gives the reader a basic understanding of the actual process behind how marketers send and how smartphone users receive push related material. Last but not least, this chapter outlines the various factors related to push notifications that may have a significant effect on the attitude of smartphone user’s towards this marketing practice. The matter of impulsive buying behaviour is presented within the context of mobile commerce as a direct result of the factors affecting push notifications. Figure 2 below gives the reader a visual representation of this chapter and aids in the understanding of the determinants later expanded upon in this paper.

**Figure 2:** Factors that shape consumer attitude towards push notifications and may elicit impulse buying behaviour (Rigollet & Kumlin, 2015)
3. Method

The following chapter is dedicated to factors relating to the methodology employed by the authors of this paper. It covers areas such as research design, chosen research methods, sampling techniques, ethical considerations, and includes an extensive operationalization where theories are related to their respective authors. The methodology chapter explains the suitability of the method selected for this study. Fundamentally, the selection is based on the impact of the research questions and the general purpose of the study.

3.1 Research Design

Research design is generally employed as a framework for the collection and the analysis of data (Bryman & Bell, 2011). The choice of research design reflects the decisions made by the researchers and furthermore categorizes the priority given to a range of dimensions of the research process (Bryman & Bell, 2011). In its most basic form, it simply represents a structure that guides the execution of a research method and the analysis of subsequent data gathered from the actual research (Bryman & Bell, 2011). Research methods can be associated with a variety of different kinds of research designs and the terms are often confused (Bryman & Bell, 2011). According to Saunders, Lewis and Thornhill (2009), it is important to have a clear link between the research itself and the purpose of the research and further develop clear research questions. This will determine what type of data collection methods are applicable to the research and will assist in the gathering of relevant data needed. In addition, qualitative and quantitative approaches to the research have to be defined as well as determining whether the study will combine one or more data collection techniques and analytical procedures (Saunders et al., 2009). A case study has been selected as the design for this research based on the fact that it focuses on a specific matter within a social context and investigates a multitude of variables, or factors, related to the focus of the paper (Bryman & Bell, 2011). According to Bryman and Bell (2011, p. 56), a case study is “concerned with the complexity and particular nature of the case in question.” Furthermore, as this investigation is bound to a geographical location it is therefore suitable to use this form of research design (Bryman & Bell, 2011). Bryman and Bell (2011, p. 63) state that the generation and testing of theory is often associated
with case studies although the approach to this matter varies with some researchers seeing “case studies as a means of refining or refuting existing theories, rather than building entirely new explanatory frameworks.” As this study in essence aims to test and refine existing theories and studies relating to factors that influence the attitude of consumers towards push marketing practices via cellular devices, this gives added validity to the choice of case study design. The time horizon that is applied to the study, the credibility of the research, ethical considerations, data collection techniques, and usage of sampling methods will be discussed later on in this chapter.

3.1.1 Research Strategies

Saunders et al. (2009) state, when conducting research there must be a clear strategy. What is most important here is not the label attached to the choice of research strategy but rather whether it will enable the researcher to answer the particular research question (or questions) that have been formulated for the study (Saunders et al., 2009). The choice of research will therefore be guided by the research question and its objectives, the extent of existing knowledge, time limitations, the researchers own philosophical underpinnings, and other resources available for the study (Saunders et al., 2009). For this thesis a qualitative data collection method in the form of a focus group has been selected in order to collect in-depth data about consumer attitudes towards the marketing tools discussed here within.

3.1.2 Qualitative Research Method

Due to the nature of this research, the authors of this paper have selected a qualitative research method approach. This approach requires an ethnographic emphasis focusing on the interaction of the observable population and the accumulation of extensive text to fully analyse the scope of the paper as opposed to an emphasis on numbers, statistical analysis, and the relationship between variables. This involves the usage non-standardized methods of data collection and non-probability sampling techniques (Saunders et al., 2009). A qualitative approach allows us to explore a wider array and gain a deeper understanding of the dimensions of the social world (Mason, 2002). By employing this approach we factor in the analysis and explanation of qualitative research dimensions such as the perceptions and understandings of the research
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participants, the ways in which relationships, social processes or discourses work, which ultimately enables the researcher to observe the significance of the meanings these dimensions generate (Mason, 2002). Through qualitative research observers wish to gain a deeper understanding of the social world by examining and interpreting the study from the perspective of the participants of the research, which is the interpretive approach to the epistemological position (Bryman & Bell, 2011). The outcomes an observer may see as a result of the interactions between participants are social properties, which relates to the ontological position of the qualitative research (Bryman & Bell, 2011). Due to the nature and sizes of qualitative sample sizes, the findings from such studies are usually not generalizable but provide valuable insight that can be used to further develop the concept and notion of consumer behaviour (Schiffman & Kanuk, 2004). Quible (1998, p. 34) states that “from a statistical standpoint, the feedback from the participants cannot be generalized beyond the participants of the population from which they were drawn.”

3.1.2.1 Focus Groups as a Qualitative Method

Focus groups are a form of qualitative research method generally described as being conducted through group interviewing and, according to Morgan (1997), are one of the leading means to collect qualitative data. The reliance lies on the interaction between group participants, based on topics supplied by the researcher, also referred to as the moderator who facilitates the discussion of the topic selected (Quible, 1998). This type of data gathering is popular among the marketing researchers of today. A rapid growth in the usage of this method has occurred as a product of the ability of social scientists to borrow from established sets of practices in marketing research, in which focus groups have been the most dominant form of qualitative data collection (Morgan, 1997). Focus groups are further used for three main reasons. First, they are used as a self-contained method in studies where they serve as the main source of data collection (Morgan, 1997). Second, they are used as a complement to other primary data collection methods (Morgan, 1997). Lastly, they are used in multi-method studies (i.e. where two or more ways of gathering data are employed) where no one primary method determines the use of the others (Morgan, 1997). According to Quible (1998), the popularity of focus groups is based on: 1) Its ability to yield qualitatively different information from traditional interviews thus providing a broader range of information stemming from the
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reactions of participants; and 2) Some research topics have no other valid or reliable, means of data collection methods. For this study a focus group will serve as the primary method of collecting data and therefore this study will be conducted through a self-contained method. When utilizing this method it is, according to Morgan (1997), of great importance to carefully match the goals of the research with the data produced by the focus group in order to successfully meet goals. The main advantage with focus groups is, as mentioned above, the ability to collect data on a much deeper level due to the interactions that occur between its participants. Furthermore, the researchers get the opportunity to observe a large amount of interactions on the topic investigated. This is suitable in this case due to the researchers is aim at gathering in-depth data regarding push notifications, impulsive buying, and lastly attitudes.

3.1.2.2 Focus Group

The purpose of using a focus group for this study stems from two reasons: firstly, the authors wish to investigate consumer behaviour in connection to the relationship between smartphone usage and impulse purchasing behaviour and secondly, to analyse the attitude of the participants towards push notifications on smartphones as a marketing tool used to elicit impulse buying behaviour. As noted by Malhotra and Birks (2003), focus groups are the most important qualitative marketing research procedure available. Focus groups are conducted by a moderator in a non-structured and natural manner with a small group of participants (Malhotra & Birks, 2003; Bryman & Bell, 2011). This research method is of great usage in the process of collecting more insight and in-depth data as the free flow of the discussion instigated within the group often leads to unexpected findings (Malhotra & Birks, 2003). One of the main characteristics and key benefits of a focus group lies in the creative discussions and other activities that are generated from the interaction that takes place among the participants (Malhotra & Birks, 2003). When collecting data in such a manner, the participants have a greater time to reflect upon the topics discussed. Furthermore, the interaction between participants, in combination with the input of the moderator, may provide a range of stimuli that can affect each individual participant (Malhotra & Birks, 2003; Bryman & Bell, 2011). The role of the moderator is crucial in the success of the focus group proceedings (Quible, 1998). Generally, a moderator is an external consultant and may therefore not know the participants taking part in the session (Quible, 1998). However,
in this case, due to time constraints and scarcity of resources available, it will be unavoidable for the author that takes the role of the moderator to not be familiar with some of the participants. The moderator should ensure that participants stay focused on the topic discussed and not deviate from the ultimate goal of the session (Quible, 1998). It is not uncommon that two moderators are involved in a session with one taking notes and assisting with the analysis of data and another taking the role of principal moderator (Quible, 1998). For this research, one of the authors will assume the position of main moderator and the other the role of assistant. Quible’s (1998) requirements for a moderator are fulfilled in the following arrangement: 1) Both authors are familiar with the processes behind focus groups and have conducted them on prior occasions; 2) Both authors have a deep understanding of the objectives of the study; 3) Both authors have the ability to cover the topics related to the research within the focus group session; and 4) Both authors are capable of probing the key points posed to the participants of the session. The author that takes the role of moderator will employ an empathetic attitude and will ask questions in manner that facilitates interaction between participants setting aside biased assumptions and objective behaviour (Quible, 1998).

As stated by Quible (1998), Malhotra and Birks (2003), and Bryman and Bell (2011), a focus group is generally comprised of 6 to 12 participants excluding the moderator. By having too few participants take part in a focus group, the risk of not being able to generate momentum increases which may inadvertently affect the group dynamic necessary for a successful session (Malhotra & Birks, 2003). On the other hand, having too many participants may result in a fracture of the group leading to the formulation of subgroups which can shift the purpose of the focus group into a competition of getting views across (Malhotra & Birks, 2003). Quible (1998) maintains that the number of participants varies across academic articles but never exceeds a total of twelve participants. The recording the focus group session is according to Quible (1998) preferable in order to assist with the reporting of the findings. According to Malhotra & Birks (2003), a focus group usually ranges from one to six hours although duration of one and a half or two hours is most common. The main issue when conduction a focus group is to give the respondents enough time to relax and become settled-in, easing their state of mind in order to explore the participant’s beliefs, feelings, ideas, and attitudes and as a result gain in-depth data regarding the topic of concern (Malhotra & Birks, 2003).
To avoid the negative impacts of having groups consisting of less than six and more than twelve participants, the authors of this paper have selected a number of ten participants, five women and five men, willing to participate in this research. The focus group session conducted for this study lasted approximately one hour excluding added time for welcoming participants and introducing the topic. The session was recorded for analytical purposes. Two recording devices were used during the proceedings. Due to ethical considerations, the participants were informed about the recording procedure prior to the start of the session. According to Malhotra and Birks (2003), care has to be taken when using audio recording devices and recommend that more than one device should be used as either may fail to operate correctly. According to Quible (1998, p. 30), the grouping of participants must be homogenous and participants must have a common denominator “such as affiliation with an organization, interest in the topic being discussed, or use of the same product or service.” Furthermore, participants may or may not know each other before the session and should be willing to partake in the interaction established within the session (Quible, 1998). A negative aspect that a researcher may face relates to how individual participants act and react within the group, which is dependent on the group scenario and dynamic. Therefore, according to Malhotra and Birks (2003), it is important to pool a homogenous group of people in terms of demographic and socio-economic characteristics together. This commonality of group participants can help avoid the unwillingness of participants to interact and can also assist with avoidance of conflicts resulting from side issue (Malhotra & Birks, 2003). However, conflicts between group participants can lead to rationalization and the defence of respondents own views and in return, genuine disagreements can get stifled (Malhotra & Birks, 2003). As previously stated, the authors have a selected a mix of both men and women. The prerequisites, and common denominators, for participation in this study are as follows: 1) Ownership of a smartphone and familiarity with its basic functions; and 2) Currently attend studies at Linnaeus University in Växjö, Sweden. Bryman and Bell (2011, p. 507) affirm that “it is unlikely that just one [focus] group will suffice the needs of the researcher, since there is always the possibility that the responses are particular to that one group.” Again, in the case of this paper, time and resources are crucial factors and therefore the authors do not foresee the ability to be able to conduct more than one full-length focus group session. To avoid as much friction as possible and make the participants feel comfortable, the physical setting of the group is also of importance (Malhotra & Birks, 2003). The environment and
atmosphere presiding over the group should be relaxed and informal (Malhotra & Birks, 2003). This focus group the session was held in a group room available at, and booked through, the campus library of Linnaeus University. The room selected for the session is noise isolated, inhibiting outside noises and distractions, and furthermore allows for the easy recording of the proceedings. This may improve the conversations; increasing the participants willingness to speak out by knowing that outsiders will not influence their answers.

3.1.2.3 Formulation of Focus Group Questions

Based on the guidelines provided by Bryman and Bell (2011) on questions for research purposes, the authors are able to formulate an understanding of the questions and topics needed for this research. Using open ended questions allows the participants to partake in an open discussion of the topics on their own terms (Bryman & Bell, 2011). The formulation of the questions used for the focus group is based on the theories previously presented in this paper as they hold certain similarities to the scope of this paper. Few closed questions, based on answers of either yes or no, were used to; for example, make sure that participants hold ownership over a smartphone as this is a requirement to partake in the session. All participants were asked the same question in unison. However, to dwell deeper into some of the answers respondents may give, the moderator may target additional questions directly to those participants that provide valuable insight. This may, in turn, lead to further discussions amongst the participants of the group. As the focus group was of a semi-structured sort, the authors acknowledge the fact that questions may be altered to suit the context of the discussion (Bryman & Bell, 2011). The questions ranged from introductory in nature, to ease participants into the discussion, to specific questions regarding the precise topics generally based on a bottom-up approach. Furthermore, the questions posed to the participants in the focus group session are aimed to cover all the highlighted areas of interest that have been presented in this paper so far.

3.1.3 Inductive Theory

According to Bryman and Bell (2011), it is useful to think about the relationship between theory and research in terms of whether or not the approach is deductive or
An inductive approach to this paper is therefore preferable as the authors aim is to investigate consumer attitudes in relation to push marketing and its effect on impulse buying behaviour. In order to have the ability to measure such factors, a deeper understanding about the thoughts of individuals needs to be carried out by performing a focus group as a self-contained method. This allows the authors of this paper to be more exploratory and gain more in-depth data. Both methods can be seen as a form of interviewing, although focus groups generate more extensive information due to the discussion created through semi-structured and open-ended questions asked by the moderator (Bryman & Bell, 2011).

### 3.1.4 Time Horizon
Saunders et al. (2009) identify two forms of time horizons found within longitudinal and cross-sectional designs, both of which depend on the time restrictions of research. Saunders et al. (2009) state, when research is conducted over an extensive period of time a longitudinal time horizon approach is the most suitable option. On the other hand, when research has a defined timeframe it is beneficial to use a cross-sectional time horizon (Saunders et al., 2009). According to Bryman and Bell (2011), a cross-sectional design is often applied to qualitative research. Using a qualitative data approach in the form of a focus group can therefore be considered to fall under this category although not explicitly stated. Most research projects conducted by students as part of an academic course are often performed within a defined time parameter (Saunders et al., 2009). Although the availability of time is fairly abundant at the early stages of research, due to the particular course this paper is written within, it is beneficial to use a cross-sectional study with limited time. Furthermore, due to the nature of the research found here within, and the quick expansion of the smartphone users across the globe, a cross-sectional time horizon is therefore utilized which will provide a ‘snapshot’ of the current state of the smartphone mobile commerce market.
3.2 Sampling Method

According to Mason (2002) to identify, choose, and gain access to relevant data sources, we use sampling and selection procedures. With the use of our chosen methods, we will be able to generate data as a result of our sampling procedure. We want our sample to allow us the possibility of developing an empirically and theoretically grounded argument about impulse purchasing as a by-product of the rise in retailing through smartphones. Therefore, the theoretical and empirical methods influence the sampling decision (Mason, 2002). In this paper, the population investigated contains consumers available at Linnaeus University in Växjö, Sweden. From an empirical standpoint, the sample includes consumers found within Linnaeus University that fit the description of postmodernist consumer and furthermore possess ownership over a smartphone with the capabilities of remote product purchasing. As this is a largely ethnographic research, sample selection was based on a non-probability approach. According to Bryman and Bell (2011, p. 442), “a convenience sample is simply available by chance to the researcher.” The sampling of participants for the focus group, based on convenience, was conducted through the social media site Facebook. Here, a total number twenty-six students were selected and furthermore requested to participate in a focus group conducted on campus premises although only ten participants eventually took part in the session. The researchers tried to maintain the number of participants selected to an equal number based on gender. The ages of the participants ranked from 20 to 26 years of age. Furthermore, the individuals requested to participate were of mixed nationalities found within Europe. The primary source of data for this research was gathered from the results of the focus group. As a result, the secondary data derives exclusively from material gathered at the discretion of the authors. The secondary data presented in this paper is used to turn primary data into knowledge. Various studies regarding the topics presented here within were collected and reviewed by the authors giving a representation of concepts appropriate to the scope of this paper. The studies mentioned here relate to fields of marketing, business, and psychology. They include researches on electronic commerce and online retailing, mobile commerce, smartphones and technological aspects, consumer behaviour, and finally impulse buying in both offline and online contexts. Ultimately, the purpose of these secondary sources is to add reliability and validity to the results gathered from the focus group and to provide a concrete theoretical background.
3.3 Data Analysis
According to Bryman and Bell (2011, p. 577), grounded theory is “by far the most widely used framework for analysing qualitative data.” To use grounded theory entails a combination of tools used by the researchers in the process of analysing the data collected from the qualitative study (Bryman & Bell, 2011). Firstly, after having developed the research question, the authors of this paper sampled various theories relating to the main subjects investigated in this paper, namely consumer behaviour and attitudes, impulse purchasing and push marketing in relation to mobile commerce. Subsequently, through the use of a focus group, data relating to these theories were collected. Thirdly, this data was transcribed and analysed. Bryman and Bell (2011) state that the key process in the analysis of data using grounded theory is found in the breaking down of data into component parts which are given names; a process called coding. Unlike quantitative research, grounded theory in qualitative research does not pool data into preconceived and standardized codes but rather allows the researcher to shape the data (Bryman & Bell, 2011). In the case of this research, the authors used this coding process after the data of the focus group was collected and through this process concepts emerged. By constantly comparing the data and concepts that emerged, the authors were able to form a correspondence between the concepts and their respective categories without losing their indicators (Bryman & Bell, 2011). According to Bryman and Bell (2011, p. 580), this is a “crucial issue to ensure that there is a fit between indicators and concepts.” Lastly, following Bryman and Bell’s (2011) process for grounded theory, the categories derived from the process of coding data were saturated in order to allow for the exploration of the relationship between the factors previously elaborated upon in the theoretical chapter.

3.3 Reaching Validity and Reliability in the Study
When it comes to assessing and establishing the quality of a quantitative research, or any fields that employ scientific analysis, validity and reliability are two crucial criteria, including generalizability which is the main component of external validity (Bryman & Bell, 2011; LeCompte & Goetz, 1982). However, there has been much debate as to whether or not these criteria are relevant to qualitative researchers, as their usage by ethnographers has been defined as irregular and arbitrary (LeCompte & Goetz, 1982). It has been argued by researchers such as Magoon (1977) and LeCompte and Goetz
(1982) that qualitative research fails to comply with the tenets of validity and reliability. As a consequence qualitative and ethnographic researchers have proposed extensions and alterations of these quantitative terms to better suit qualitative research approaches (Bryman & Bell, 2011; LeCompte & Goetz, 1982). In her book, Designing Qualitative Research, Mason (2002) states that difficulties arise when trying to apply technical procedures derived from “broad ideas and principles” (i.e. rooted in quantitative research) to qualitative research. Mason (2002) argues that validity, through which we demonstrate that our concepts are measured, observed or identified in the way we say they are, must be accurately reflected through the method and data source chosen. The concept of generalizability, the extent to which we can claim that our findings can be generalized beyond the context in which our research was conducted, can be achieved in qualitative research by using various sets of principles and logic (Mason, 2002; Bryman & Bell, 2011). Finally, reliability, which is concerned with whether the results of the study are repeatable, is fulfilled through the accuracy of the methods and techniques in strictly qualitative terms therefore omitting the standardization of research as is common in quantitative research (Mason, 2002; Bryman & Bell, 2011). As defined by Bryman and Bell (2011), two positions with regards to validity and reliability have been distinguished. Kirk and Miller (1986, p. 21) state that validity is a “fundamental problem of theory” and discern it as the result of the inability to perfectly control experiments and the failure to perfectly balance measuring instruments. Furthermore, Kirk and Miller (1986) view the instability of continued observations, the similarity of continued observations, and the unvarying measurements yielded by a continuous single method of observation, as the causes for problems with reliability. To tackle the problems with both validity and reliability in qualitative research, LeCompte and Goetz (1982) propose the adaptation and further extension of these concepts for such investigations. External reliability focuses on the ability of an independent researcher to discover the same phenomena or replicate the original study using the same or similar contexts (LeCompte & Goetz, 1982; Bryman & Bell, 2011). According to Bryman and Bell (2011) this can be achieved by adopting a similar role to the original researcher. The research posed here reaches external reliability as other researchers are able to conduct the exact study within the confines of other universities inside of the European geographic area. Furthermore this particular study can be replicated in other countries across the world as long as the researchers adopt and the exact same role the authors of this paper undertook and adhere to the limitations presented in this thesis. Internal
reliability relates to the degree to which the researchers of a single study agree upon what is being observed (Bryman & Bell, 2011; LeCompte & Goetz, 1982). The authors of this paper both attended the focus group but adhered to the rules and regulations set forth by authors such as Morgan (1997), Quible (1998), and Bryman and Bell (2011) previously mentioned in this chapter. This entails that one researcher acted as a moderator whereas the other simply observed and took general notes on the progress of the focus group. As the focus group is the only source of primary data collection for this research, after analysis and extensive discussion of the progress of the focus group, both authors concluded that they unanimously agreed with the findings. In addition, prior to conducting the focus group and throughout the investigation process, both researchers were in agreement on the detailed and explicit focus of the paper therefore fulfilling the internal reliability criterion. External validity, according to LeCompte and Goetz (1982), refers to the extent to which scientific observations can be compared, or rather generalized, across groups and social settings (Bryman & Bell, 2011). During the process of gathering data and conducting the investigation, the researchers of this paper encountered a problem with the generalizability, or external validity, of the research. As is mentioned in the limitations and delimitations chapter, due to the limited time frame and resources available it was decided to focus exclusively on consumers found within the university to which both authors belong to. Furthermore, as a result of the approach chosen for this research, the authors are unable to fulfill this particular criterion as the findings may not reflect other consumers found in other countries living under different circumstances than those available to the participants of this study. Measures to ensure that generalizability remained intact were taken; however, the authors deem it necessary to point out that this may not have been sufficient. Finally, internal validity addresses the degree to which such observations and measurements represent reality (LeCompte & Goetz, 1982). Bryman and Bell (2011, p. 395) further expand on the concept of internal validity by stating “[…] whether or not there is a good match between researchers’ observations and the theoretical ideas they develop.” The theoretical ideas used in this thesis were carefully matched to the scope of the research presented. This was done after the general idea behind the paper was intensively analysed and further developed. The authors also chose to use a qualitative approach to the research in order to ensure that the data gathered was extensive and provided a precise interpretation of the reality of smartphone consumers.
3.4 Source Criticism
As is stated in the research gap, there is little academic material available that relates to the scope of this particular study. Moreover, the availability of other material such as newspaper articles concerning push notifications is fairly restricted and with varying degrees of reliability. This further limits the accessibility of previous studies within the same field. This paper briefly presents a theory concerned with the understanding of human behaviour and attitudes. The theory of reasoned action modelled by Ajzen and Fishbein (1980) is used to give the reader a deeper understanding of the psychological processes behind attitudes exhibited in consumers. The purpose of this particular chapter is not to dwell deeper into the realm of the psychological processes behind human actions, as this would constitute as an analysis of an entirely different discipline, but to aid the reader in a brief understanding of the theories related to this matter. Furthermore this theory allows the authors to give specific parameters to attitudes and define it within the context of the subject examined in this paper.

3.5 Ethical Considerations
It is important to dedicate a specific chapter of this paper to considerations about ethical and moral issues with regards to the scope of the investigation presented here within. As researchers it is our duty to be aware of the importance of ethical considerations and to have a deep understanding of such issues as it will enable us to undertake ethically acceptable investigations. Although ethical considerations may be more relevant when undertaking investigations within the fields of science where human subjects are the main emphasis, it is nonetheless important to cover areas relating to the participants of the research, and the integrity of the researchers to name a few (Behi & Nolan, 1995). However, this chapter omits an analysis of ethical theories and does not present any depth to the explanation of theories commonly related to ethical analysis nor to the proponents of various ethical subjects. The authors of this paper upheld confidentiality and anonymity with regards to the focus group participants. None of the participants were asked to present themselves by their names and are only referred to as participant in the transcription of the session. Each participant was assigned a number by the moderator to facilitate data analysis and uphold anonymity. During the focus group proceedings, the authors requested the consent of the participants to record the session for the sole purpose of data analysis. In no way, shape, or form did the authors invade
the privacy of participants (Bryman & Bell, 2011). The participants of the focus group were not requested to divulge private information about them. Furthermore, the authors did not deceive the participants as the process was explained to them in detail prior to the session. Lastly, the authors of this paper hold no affiliation with any firm or third party that may benefit from, or influence, the study. As a result, neither author holds a conflict of interest with any third party with vested interests in the results presented here within and have not received any sponsorship or funding for the publication or research conducted. This eliminates any biased connotations or implementations to the research.

3.6 Operationalization

An operationalization refers to the process of measuring a concept (Bryman & Bell, 2011). This procedure involves identifying the specific research procedure used in order to gather data concerning the relevant concepts as it “[...] provides a framework for the collection and analysis of data” (Blackstone, 2015; Bryman & Bell, 2011, p. 40). A requirement for a successful operationalization involves the researcher to know what research methods will be employed in order to understand the concepts used. When performing an operationalization, indicators have to be drawn out to represent the ideas which the researchers are interested in investigating further (Bryman, Bell, 2011). In the case of this research the authors are interested in consumer behaviour and smartphone usage in connection with attitudes towards push notifications as a motivator for impulse buying behaviour. The process of measurement generally involves advancing from broader to specified focus (Blackstone, 2015). According to Blackstone (2015), this process is not always preceded in the same way across researches. The operationalization table for this research can be found in Appendix 9.1 Operationalization Table.
4. Empirical Investigation

This chapter is dedicated to the empirical investigation based on data gathered from the focus group and provides some excerpts from the reactions of the participants. The aim of the focus group was to discuss the usage of smartphones for purchasing purposes as well as to uncover the participants’ attitude towards push notifications as marketing tool used to evoke impulse buying behaviour. A range of different questions based on theories in consumerism, mobile commerce and push marketing, impulse marketing, and factors relating to push notifications shaping the consumers’ attitude were presented to the focus group participants. A total of ten participants partook in the investigation, five males and five females. The participants were all students at Linnaeus University but with backgrounds from different European countries, providing different aspects of behaviour and attitudes, however, still within the Swedish context. The duration of the session was one hour and took place in the campus library of Linnaeus University.

4.1 Consumer Behaviour and Attitudes

The first part of the focus group session was dedicated to the topics of consumer behaviour and attitudes. The focus group participants were asked to state their main reasons, or purpose, for owning a smartphone. The answers ranged between hedonic and utilitarian reasons and included activities such as texting, keeping in touch with friends and family, media and browsing, and general features of the device. Participant 4: “Texting, staying in contact with my friends.” When asked whether the participants had ever browsed retailers online through their smartphones most participants stated that they had at some point. One attendee of the group mentioned that he often used his smartphone to browse the particular site of a large retailer, stating that the trustworthiness of the website prompted him to download the official application on his smartphone for browsing and purchasing purposes. Participant 3: “I use Amazon quite a lot and mainly because I found the site trustworthy, therefore I also use the app.” Various female attendees stated that they had at some point browsed for clothing items and apparel via their smartphones stating convenience as the main factor. Opinions and reactions varied slightly between positive and negative when asked to describe their feelings towards being accessible twenty-four-seven via their smartphones. One
attending noted that for safety reasons, the accessibility generated by smartphones was positive to which most participants agreed. Participant 2: “It is good. You feel safe where you are because somebody can always reach you if you are in some kind of problem.” Another participant remarked that this accessibility, within the context of social media, increased the level of stress, feeling compelled to always respond to messages. Participant 8: “I find it annoying, because [I am] always under a little bit of stress.” When asked if they felt the same way if companies were able to reach them on the same basis, reactions were fairly unison with the majority agreeing that this would be largely negative. Participant 2: “I feel annoyed […] I do not like a company to send advertisements to me all the time.” The participants felt that this could be an intrusion upon their privacy; however, a participant stated that one could always choose to simply ignore such queries. The participants were asked whether they considered themselves to be modern in the sense that they quickly adapt to changes and are followers of trends in an overall aspect of life. Most attendees seemed quite confused about the question, but after a brief elaboration the majority concluded that they were slow adapters, stating that they needed convincing to welcome new trends. One participant in particular mentioned that he was not a follower of trends and therefore held a largely negative attitude towards mass trends.

4.2 Mobile Commerce and Push Marketing

All participants that took part in the focus groups held ownership over a smartphone, irrelevant of type or brand, in accordance with the prerequisite of partaking in the investigation. Furthermore, all the participants were aware of the basic features of a smartphone device. The participants had knowledge over how to conduct shopping activities via their mobile devices, therefore acknowledging mobile commerce as an established practice. All participants present were aware of the fact that retailers can make use of smartphones to send them specific marketing related material. When asked whether they used their smartphones for different types of information searches, all ten participants confirmed they did so on a daily basis. One participant said that it was convenient to access information databases for search queries on the smartphone when on the movement or remotely. Participant 1: “[…] if I want to know about it I just pick up my phone and google.” However, some stated that they preferred to search for larger queries on desktop or laptop computers noting that smartphones are generally slow and
annoying for such activities. Participant 4: “I sometimes prefer the computer because my phone can be really slow and then it becomes annoying too.” Only a small portion of participants, a total of four, stated that they had at some point in time conducted purchasing activities through their smartphones. Furthermore, three out of these four participants confirmed that had made repeat purchases via their cellular phones.

4.2.1 Push Notifications
A majority of attendees stated that they were aware of the push notifications feature on smartphone devices, although four of attendees did not understand the concept. Further two pictures that represented push notifications on a regular smartphone screen was presented to the attendees. Upon seeing these, the participants quickly asserted that they were familiar with the feature but not its name. All participants present at the session affirmed that they regularly receive push notifications from a range of different smartphone applications. Most commonly, participants associated push notifications with text messages and social media applications on smartphones such as WhatsApp, Facebook, and Snapchat. This confirmed the fact that smartphone users are aware of this particular feature and is accustomed to receiving them on a daily basis. The participants were not asked about their knowledge of the technological processes behind push notifications or how these are delivered from a server to a user.

4.3 Factors Influencing Consumer Attitudes

4.3.1 Appealing to Rationality or Emotions
Participants that had previously made use of mobile commerce were asked to describe their state of mind, or mood, when the purchasing activity took place and furthermore the circumstances for this action. A male participant of this group stated that he regularly browsed the application of a large retailer and by simply clicking around often stumbled upon items that appealed to him. The moderator asked this particular participant if he would be more likely to purchase a product, or item, if he were subjected to a rationally appealing push notification compared to one that addressed his emotions. The participant replied by stating that he would be much more likely to purchase an item if he were in a positive mood. However, the purchasing decision would be based on whether or not he had previously searched for, or was aware of, the
product prior to being subjected to the push notification. In addition, according to this participant, rationality, such as product information or features, had a greater effect on him compared to emotionally appealing notifications by stating “[...] I am not an emotional buyer, I am a rational buyer.” The other three participants stated that the decision to buy a product promoted through a push notification would largely depend on the context of their surroundings, giving no clear explanation as to which whether rationality or emotion would increase their likelihood of exhibiting buying behaviour. These participants elaborated that their surroundings and state of mind had significant effects on their decision to purchase. Therefore emotionally or rationally appealing messages depended on their own individual circumstances at that specific moment. When the other participants present (i.e. those that had not previously purchased products via the smartphones) were asked the same question, they too stated that it would largely vary on their mood. This topic was elaborated and confirmed that the appealing nature of a push notification could be seen from two sides; positive or negative. If the participants would be in a positive mood, then an emotionally appealing message would maybe prompt them to have a positive attitude towards the feature. Participant 7: “If I am in a good mood and I see the offer I think I would take it.” However, the opposite applied to whether the participants were in a negative mood. Furthermore, the participants stated that knowledge over the product, such as its hedonic or utilitarian features, would further affect whether they would prefer a rational or emotional advertisement.

4.3.2 Localisation
The participants present were subjected to questions regarding the localisation features available on smartphones. The attendees were asked what their reactions would be if they were to walk past a store and automatically receive push notifications promoting products and whether they had ever experienced such cases. None of the attendees had ever experienced this form of push marketing and the general attitude was largely negative. One participant of the group mentioned that it would be beneficial to receive localisation based push notifications if the product promoted related to the need of the consumer and was therefore not random such as offering female items to a male user and vice versa. Furthermore, the attendee made note that it may work as reminder of products that the consumer may be in search of. Some participants strongly disagreed
with this form of push marketing, stating that if they really needed a certain product they would search for it themselves. Asking the explicit permission of users to push location based notifications was crucial amongst all the attendees. The majority stated that it would be intrusive of a company to advertise information that they did not solicit and furthermore might be irrelevant to their needs, having a negative effect on their shopping experience. The ability to shut down such push notifications was considered to be elementary as this would allow the consumer to receive information and offerings on his or hers own terms. However, one participant felt that although an application may give him the ability to request or deny location based notifications, it would not change his negative attitude towards this factor. This participant was adamant that companies should rather look towards meeting the needs of the consumer’s in-store and should not waste time and resources trying to lure in consumers through such marketing practices. One participant of the group had a largely positive attitude towards localisation features and suggested that it could assist consumers who are searching for specific requirements, or features, in a product and might speed up the process of having to search for the product. When asked how they would feel if retailers could send them targeted push notifications based on their location and without their permission urging them to download a retailer’s application to simplify the shopping experience, reactions were mainly negative. The general attitude was that it would still be considered as intrusive and annoying. Many participants suggested that if this were the case, retailers should look towards finding more ‘polite’ ways of getting in touch with the consumers instead of intruding upon their private devices. Two to three participants were not concerned with the ability of retailers to specify their location, with one participant stating that if a retailer felt the need it could very well do so. The general reaction of the focus group to localisation features as a product of the smartphone was positive. However, almost all participants felt that the ability of retailers to send them location based push notifications without out their explicit consent lowered their attitude towards the service.

4.3.3 Consumer Involvement with Product Advertised
Participants were asked if their level of involvement with a product might affect their attitude towards push notifications. The majority of participants stated that they would in general perceive messages, or push advertisements, positively if they originated from
a product or brand they were familiar with and negatively if they were not. The main reason behind this lies in their knowledge about what they can expect from a well-known brand or product compared to the level of uncertainty that arises from an unknown one. When asked if customized offers from unknown brands or products would affect their attitude towards push notifications, one participant noted that if the product would be ‘attractive’ to her she would become annoyed by the notifications since it would trigger her to impulsively buy the product. However, this participant mentioned that it would not reflect negatively on her perception of the feature as she could simply turn the notifications off. The other participants stated that they would prefer to receive customized offers if they were unaware of the product. When asked if this would increase their trustworthiness of the company and willingness to access the official application to purchase products, all participants agreed stating that it would increase their level of confidence in the brand or product and furthermore their attitude towards notifications. With regards to low-involvement products, the participants affirmed that the visual nature of the notification would have a positive effect on their attitude towards push notifications. In contrast, the participants concluded that if they were to be subjected to notifications promoting high-involvement products, they would prefer more utilitarian information. Again, this was dependent on whether the participants were familiar or not with the product, and as a result some of the opinions varied.

4.3.4 User Consent and Privacy

Concerns over user privacy, security, and consent were a particular matter of interest among the group participants. When asked what prompted them to not purchase via mobile commerce services, the main answer was the prevailing sense that smartphones lack security and privacy. One attendee noted that smartphones do not have the ability to handle software designed to protect user privacy and security, as is common with other web-connected devices, and therefore this discouraged him to divulge private information such as bank details. Participant 6: “I feel more insecure about the mobile phone being less protected.” This affected all participants of the session excluding the four participants that had previously made use of mobile commerce services as the question was not aimed at them. A participant of the group who was familiar with the purchasing process via her cell phone and furthermore was a frequent mobile buyer,
stated that she only used her smartphone for online purchases because had previously browsed the product on the retailer’s official webpage via her laptop. This participant added that she felt secure in buying the product from this particular retailer since she had already ‘tested’ it on another platform before performing the activity on her cellular device. Participant 5: “I only use my smartphone for online purchasing because I already tested it on my laptop. […] I feel more secure when doing it like that because I know the website is safe.” Another participant agreed with this statement, mentioning that a sense of security and trustworthiness would definitely affect whether or not he would purchase remotely. Participant 4: “If I know that I can trust the [online] shop then I would probably purchase through my phone.” If the retailer’s site is unknown, and therefore the features of security have not been investigated by the participants, it would discourage the participants from buying whilst on remote through their phones. The participants were asked to mention factors that would have a positive impact on their sense of security with regards to mobile commerce. A large portion of the group stated that lack of security was prevalent in smartphones. Some participants mentioned that there might be a larger risk of performing an undesired action, such as disclosing sensitive information, and that smartphones have lack of control which does not translate to laptop or desktop devices. One attendee claimed that this had to do with the fact that other devices are able to provide a better overview of actions and can provide software that diminishes the risk of third-party interference. The moderator asked participants if they were aware of the fact that when making use of electronic commerce they are deliberately giving away private information and if whether buying through smartphones constituted as the same principle. The participants stated that they were aware of this but disagreed with the statement that purchasing online via a smartphone was intrinsically the same as performing that action on stationary device. A crucial factor that would increase their sense of security related to the origin of the application and the push notification. The participants stated they would feel safer making purchases through applications provided officially by the retailer and not through third-party so-called ‘app stores.’ Furthermore, the participants stated that this would increase their overall perception, trustworthiness, and level of perceived security. In addition, their attitude towards the notifications would increase positively if they knew where it originated from and if this source was reliable. With regards to user consent, participants adamant that this factor was crucial in their overall attitude towards push notifications. The moderator asked the participants if their attitude towards notifications
would be affected if they were to receive such marketing material or advertisements without their consent. Most participants said they would feel extremely angry and that such an occurrence would incite them to delete the notifications, adding that this would negatively affect not only their attitude towards this practice, but towards the application and even the retailer from which the notification originated also. When further asked about the personal information, such as buying habits, they deliberately divulge to companies when conducting online shopping, which retailers can use to target specific advertisements. To them, the majority felt that this practice was acceptable and further stated that this would allow them to find relevant products easier and may peak their interests in items they were not previously aware of, stimulating their impulsivity. Some participants mentioned that if they wished to discontinue seeing targeted material they could make use of features to block this content. A majority of the attendees were not concerned with retailers building user patterns based on their searches or purchasing habits, but that consent to send them targeted push notifications was essential in shaping their overall attitudes towards both the retailer and the practice.

4.3.5 Notification Content

Another factor in the participant’s positive perception of push notifications related to the content of push notifications. Both unrelated, and further unsolicited material, was deemed to draw a largely negative attitude towards the practice. Although the majority stated that if content was targeted at their needs, and appealed to them, it would increase their attitude towards the notifications, with some stating that they would prefer to receive notifications that focused on their likes. Participants of the group stated that the content could also raise the credibility of the notifications. Participant 9: “Depending on the information, I can also tell if it is credible.”

4.3.6 Frequency of Notifications

The frequency of notifications would, according to the participants, affect their attitude. Overall, the participants stated that too many notifications would discourage them from buying from the retailer and furthermore would negatively affect their attitude towards push notifications. However, this would depend on the consumer. Receiving constant notifications from unknown products or retailers was considered to be extremely
negative. Participant 3: “If you overload somebody with notifications it of course gets annoying.” In contrast, receiving frequent notifications from known retailers would be seen as negative although not as strongly, with one attendee stating that it would be easy to just ignore such messages. The moderator asked participants if they would tolerate a larger number of push notifications if there would be some form of incentive involved. The majority agreed that if there were incentives involved then they would tolerate more notifications, irrelevant of whether or not it originated from a known or unknown retailer. Furthermore, they would continue usage of the application in spite of a larger number of notifications.

4.3.7 Incentives
A part of the session was reserved to analyse whether participant’s attitude towards push notifications would alter if subjected to messages with incentives. It was concluded that incentives can have a strong effect on both influencing the consumer to purchase products impulsively and increase a positive attitude towards this push marketing practice. Participant 7: “If they are offering a discount then I would probably purchase the product.” Factors such as discounts, special offers, packages, and time availability of specific products all had an effect on the general attitude. Participant stated that incentives worked positively in attracting their attention to notifications. Other factors such as delivery and easiness of payments were regarded as having positive outcomes. Two participants, who had previously purchased using mobile devices, stated that they were prompted by the incentives promoted in a push notification advertisement. The items purchased, on impulse, were apparel related. One of these participants stated that a limited time offer drew her to purchase the item. However, she had previously seen and browsed this item on the retailer’s website before being subjected to the notification offer. The other participant mentioned that the advertisement had prompted him to go to the physical and purchase the item, although he had not showed explicit intention to buy the product prior to being subjected to the advertisement. However, it was concluded that there are drawbacks to the efficiency of incentive related push notifications. These factors, according to the participants, had an effect on their attitude towards the notifications and related to the mood of the consumer, monetary status, and the delivery time of such notifications. The factor of delivery time was discussed amongst the group participants. The majority stated that
they likely ignore advertisements and find them annoying if they were sent early during
the day even though the notifications contained incentives. The likelihood of a positive
attitude, and ultimately the likelihood of purchasing behaviour, would increase as they
day progresses.
5. Analysis

The following chapter takes the relevant theories processed in previous chapters and compares them to the data gathered from the empirical investigation. These include consumer behaviour, mobile commerce, and factors influencing both consumer attitudes towards push notifications and impulse buying behaviour. It is worth noting that, at times, the factors examined here have the tendency to bridge each other as, for example, localisation can relate to consent and vice versa.

5.1 Consumer Behaviour and Attitudes

When investigating consumer behaviour we look towards the activities individuals undertake to obtain, consume, and dispose of goods and services (Blackwell et al., 2001). This includes analysing the reasons behind why we as consumers purchase and furthermore to observe how we make decisions based on the resources available to us (Blackwell et al., 2001). In their study on human behaviour, Ajzen and Fishbein (1980) argue that behaviour is not controlled by some unconscious motive or that it can be overpowered by desires. In contrast, studies by Rook (1987), Rook and Fisher (1995), Beatty and Ferrell (1998), and Jeffrey and Hodge (2007), state otherwise. The primary data upon which this study basis itself, indicates that such a statement is twofold. On one side, behaviour seems to be consistent. Consumers, in a general sense, either behave positively or negatively towards an object. On the other side, it is, however, possible to shift behaviour by influencing the consumer with certain determinants. The data from this study shows that certain objects, when presented in an appealing manner and along with certain connotations, can elicit a sudden and powerful urge in the consumer to perform a certain action or behave in particular manner such as impulse buying. The social surroundings of an individual is said to influence the behaviour exhibited in a consumer (Pavlous & Fygenson, 2006). Some researchers suggest that this social influence is not translated onto the world of online shopping as consumers are not affected by their surroundings (Jeffrey & Hodge, 2007; Verhagen & van Dolen, 2011). However, the data presented in this paper suggests that, at some level, mobile commerce consumers are still susceptible to their surroundings by behaving in certain ways.
Consumer behaviour spans over a large number of actions and encompasses a wide variety of factors. A component of behaviour, which is often regarded as its most basic construct, lies within the attitude of individuals (Bennett & Kassarjian, 1972). The analysis of attitude plays a vital part in gaining a better and deeper understanding of consumer behaviour (Schiffman & Kanuk, 2004). All consumers have an extensive variety of attitudes towards boundless objects and although dynamic, attitudes cannot be neutral; we either hold a positive or negative attitude towards something (Schiffman & Kanunk, 2004; Bennett & Kassarjian, 1972). The focus group participants were requested to express their thoughts, feelings, and behaviour with regards to push notifications as a marketing tool. The data gathered from the session allows for a deeper understanding of consumer attitudes and perceptions towards such practices. The results gathered from the focus group largely support the statement that attitude is a learned tendency to either behave positively or negatively towards an object in a constant manner (Schiffman & Kanuk, 2004). However, by posing participants with questions regarding the various dynamic features found within push notifications on smartphones, the authors were able to notice that attitudes slightly shift depending on a variety of factors. A participant may hold a largely negative, or largely positive, attitude towards push marketing practices in general but determinants such as incentives, security, privacy, frequency, and content, to name a few, can effectively shift their attitudes to either side of the spectrum. Belief that a particular behaviour will lead to a positive outcome reinforces an individual’s attitude towards exhibiting that behaviour (Pavlou & Fygenson, 2006). As a result, the opposite occurs if belief that a given behaviour will lead to a negative outcome. The data gathered from the focus group session indicates that when presented with factors that reinforce the belief that behaviour will lead to a positive outcome, then the consumer is likelier to exhibit that behaviour as opposed to a negative one. Ajzen and Fishbein (1980, p. 5) stated “[consumer behaviour] is [a] human action involving a choice among various alternatives, and there is little reason to assume that novel and unique processes will have to be invoked in order to account for such action.” The data presented here within does not support such a blunt statement. It is abundantly clear that consumer behaviour is a highly intricate process consisting of countless layers and determinants. For example, impulsive buying behaviour may be spontaneous and erratic but the process behind, and furthermore the process used to elicit such a behaviour, is largely complex and involves ample factors. The modern consumer of today is often defined as being technologically savvy and ‘connected,’
much like the population investigated (Venkatesh et al., 2012). However, the participants that took part in this study considered themselves to be late adopters to trends, slowly keeping up with changes within society, technology, and especially within mobile commerce.

5.2 Mobile Commerce and Push Marketing

The transition of electronic commerce to the newer dimension of mobile commerce has allowed consumers to perform purchasing activities across boundaries and without restrictions (Chong, 2013). As the main prerequisite for partaking in the investigation, participants had to confirm ownership over a smartphone, irrelevant of brand or type, and a basic understanding of its features. All the participants that took part in this investigation fulfilled these criteria and proved to hold familiarity with the intrinsic features of the device. This was not surprising, as the authors did not expect any of the participants to not hold ownership over a smartphone of some sort, due to the technology’s extensive prevalence within developed societies (Wilken & Sinclair, 2009; Chong, 2013). The participants viewed their smartphones as private and personal instruments, and reacted largely negatively to factors which breached, or intruded, on this privacy. Mobile commerce has the ability to, and is furthermore expected to, have an equal or larger impact on businesses as electronic commerce (Chong, 2013; Khalifa et al., 2012). This is attributed to the smartphone’s impressive expansion and to the increased availability of mobile Internet (Zhang et al., 2013). This may well be possible; however, the data gathered suggests that mobile commerce is still in its growth phase, with the potential of peaking within the coming years. Less than half of the participants present had at some point conducted shopping activities through their wireless devices and there seemed to be a certain degree of uncertainty towards various features of the smartphone that impaired other participants from making use of mobile commerce. However, the participants were familiar with using their smartphones for browsing activities by searching for retailers online, and sifting through product categories with no specific intention of purchasing. Amongst other factors, mobile commerce is unique due to the ability of wireless communication devices to generate convenience, omnipresence, and localisation features (Cao et al., 2015). Views on the accessibility, or ubiquity, of smartphones varied between negative and positive. On the one hand, within a personal and social context, the data shows that more than half of the
participants feel that accessibility increases the level of stress and only a minor portion feels that ubiquity holds positive aspects. On the other hand, within the context of company accessibility to smartphone users on a round-the-clock basis, a majority of the participants views this as a negative aspect. Therefore, the positive ubiquity aspect of smartphones must be viewed from the perspectives of both social and organizational contexts, where the former has mixed views and the latter largely negative views.

### 5.2.1 Push Notifications

By employing push notifications marketers are able to reach the attention of the smartphone user in an immediate manner and can, furthermore, lead to impulse purchasing behaviour (Taylor, 2014). Push notifications do not require the user to request for material and as a result this tool falls under the push marketing category. The data illustrates that the population investigated is aware and familiar with push notifications and furthermore accustomed to receiving several notifications a day from an assortment of smartphone applications. Out of the ten participants present, only two had ever reacted to push notifications which lead to impulse buying behaviour. A push notification laced with incentive connotations triggered both participants to purchase the product advertised. However, the circumstances for each purchase were dissimilar. One participant had previously browsed the product on the retailer’s webpage and, when subjected to a limited time offer push notification advertising a particular product, triggered impulsive buying behaviour in the consumer. The other participant, however, was also affected by a push notification but reacted to it in a different manner. Instead of triggering the participant to purchase the product through the smartphone, as is generally the purpose of such practices, the notification stimulated the participant to visit the retailer’s physical store to conduct the purchasing activity. Both participants had not set out with the intention to purchase these particular items before being subjected to the notifications. As a result, the authors conclude that push notifications do hold the ability to stimulate impulsivity in consumers.
5.3 Factors Influencing Consumer Attitudes and Impulse Purchasing

The following factors mentioned below are discussed within the context of push notifications on smartphones and their respective relations with consumer impulse buying behaviour.

5.3.1 Notifications Appealing to Rationality or Emotions

Advertising messages either appeal to the rational or emotional sides of consumers (Drossos et al., 2013). The focus group participants were asked a set of questions related to the factors of emotionality and rationality. When subjected to new products, and therefore have no prior knowledge of its features, consumers are usually more receptive of advertising messages containing rational and utilitarian information (Drossos et al., 2013). In contrast, when subjected to advertising messages promoting known products, consumers prefer advertising messages appealing to their emotions (Drossos et al., 2013). When posed with questions relating to this, the data confirms the former statement, noting that rational messages containing either utilitarian or objective information about a product which consumers have no experience with can increase a positive attitude and may ultimately lead to impulsive buying behaviour. However, results varied regarding the latter statement. Some of the focus group participants stated that they were partial to whether they would prefer emotional or rational information even if they were familiar with the product promoted beforehand. This may have been an inconclusive result, as the formatting of the question could have been more specific in outlining the parameters of these factors prior to presenting them to the group. Furthermore, an elaboration of these factors would have probably yielded more concrete results. Nonetheless, this study confirms that push notifications serve different purposes when looking towards their appealing nature. Emotional or rational information can definitely lead to an impulse purchase and moreover, depending on the consumer’s knowledge of the product promoted, can affect their attitude towards the notifications.
5.3.2 Localisation Features in Smartphones
Various researches attest that the built-in localisation features in smartphones is crucial in the successful targeting of consumers (Zhang et al., 2013; Cao et al., 2015; Chong, 2013). The factor of localisation was presented to the focus group to largely negative reactions. As is stated in the analysis of the data collected from the focus group, none of the participants had ever experienced localisation-based notifications. However, the data shows that the attitude towards the possibility of such notifications was negative. Even though the notifications would only be pushed with the consent of the user, this was still perceived as a negative factor. Therefore, the attitude towards localisation notifications is considered to be negative as it is portrayed as intrusive and annoying. As a result, this factor may largely elicit a negative attitude in the consumers towards push notifications, although it may of course differ in a different population. Irrelevant of whether or not a retailer may ask for the permission of the smartphone user to push location-based notifications for advertising purposes, the data gathered shows largely unanimous opinion that this would decrease user attitude towards the tool. In addition, only a small fraction of the data supports the notion that localisation can have a positive effect on impulse buying behaviour as this depends on the relevancy of the notification to each individual receiver.

5.3.3 Consumer Involvement with Product Advertised in Notification
The data gathered confirms that consumers are prone to exhibit impulse buying behaviour when purchasing in-store. This relates mostly to low-involvement products, although as the data shows, a small portion of consumers can exhibit this behaviour of spontaneity towards high-involvement products. The same applies to the online dimension where consumers are likelier to exhibit impulse buying behaviour towards products of low-involvement compared to high-involvement products (Kannan et al., 2001). The data of this study concludes that impulsive buying exhibited in mobile commerce consumers increases with low-involvement products. Consumers tend to search for added information and are subject to stricter criteria when purchasing high-involvement products and therefore rarely exhibit impulsive behaviour with regards to such products. In accordance with Drossos et al.’s (2013) findings, the participants expressed they would likely exhibit positive attitudes towards push notifications promoting high cognitive involvement products as opposed to those with low cognitive
involvement. Furthermore, the results from the focus group show that consumers would likely have a positive attitude towards products of low affective involvement, contrary to the findings of Drossos et al. (2013).

5.3.4 User Consent to Receive Notifications and User Privacy

Privacy and security are regarded as the single most important factors in the usage of mobile commerce and its adoption amongst consumers (Chong, 2013; Zhang et al., 2013). The data presented in this paper can confirm that these aspects are crucial as it confirms that users are concerned over the lack of security, such as antivirus software and firewalls, on smartphones. This discourages users from purchasing via their mobile phones as they can be vulnerable to hackers by giving away sensitive information such as bank details. The data gathered shows that a small fraction of consumers did not express concerns over the giving away private information due to a verification process of the respective retailer’s webpage taking place prior to purchasing through their smartphones. However, the data shows that most participants were not concerned, and were even aware, of the fact that they may be giving away other private information, such as user patterns, when conducting online purchases. Researches have concluded that consumers conceive negative attitudes towards advertising related material if they are pushed without the user’s consent (Drossos et al., 2013; Barwise & Strong, 2002). The results from the focus group confirm that participants consider their explicit consent, or permission, in receiving marketing related material on their smartphones as a crucial factor in their shaping of a positive or negative attitude towards push marketing practices. Furthermore, consumers may find unsolicited push material annoying and decrease their attitude towards push notifications with the group participants stating that this would be considered as intrusive upon their private lives similar to the findings of Izquierdo-Yusta et al. (2014). User consent may positively trigger impulsive buying behaviour in smartphone users; however, the issue of security largely repels users from undertaking such activities.
5.3.5 Content of Notifications
The formulation of relevant notification content is vital in the positive response of consumers towards advertisements on mobile phones (Barwise & Strong, 2002). Information appealing to either rationality or emotion and furthermore the relevance of the information provided in the notification will lead to positive attitudes towards the content advertised (Drossos et al., 2013). A lack of relevant notification content will lead the user to conceive a negative attitude towards the practice (Drossos et al., 2013; Barwise & Strong, 2002). The focus group results prove that the content of notifications can have an effect on the consumer’s attitude towards the practice. Unrelated material that does not relate to the needs, or preferences, of the receiver can adversely affect a positive attitude. This is further amplified if the unrelated material is unsolicited. However, the focus group yielded results that support the notion that if content is targeted at the individuals and appeals to the consumer’s nature it will increase the recipient’s attitude towards the push notifications. The data also shows that depending on the content and its formulation can either increase or decrease the user’s credibility towards the advertising. Lastly, as notification content relates to some of the other factors investigated in this paper, such as the consumer’s involvement with the product advertised and its appeal, it can positively increase the likelihood of an impulse purchase if adapted to the smartphone user.

5.3.6 Frequency of Notifications
As a pervasive form of push marketing, push notifications run the risk of over-flooding receivers with marketing related material and may ultimately be perceived as annoying and intrusive. In the case of this study, the focus group failed to yield a specific quantifiable number as to how many notifications per day, or week, are considered as surpassing the limit. However, one the one hand, when the frequency of push notification has surpassed the limit of the smartphone user the individual will either simply ignore the advertisements or grow frustrated and proceed to delete them. On the other hand, when the frequency of push notifications has, again, surpassed the appropriate limit of the receiver on a continued basis, it may incite the individual to discontinue usage completely. Both of these instances will, of course, adversely affect the consumer’s attitude towards push notifications. The focus group results on whether
the frequency of push notifications had any perceptible effect on impulse buying behaviour or if they increased the likelihood of an impulsive decision was inconclusive.

**5.3.7 Incentives within Notifications**

The willingness of smartphone users to receive marketing related material has been found to have a positive correlation with incentives. Studies have shown that financial rewards may increase the likelihood a consumer is towards receiving promotional material (Barwise & Strong, 2002; Tsang et al., 2004). In addition, it has been found that incentives can affect the rate of when the material is read and even the way in which consumer perceive the advertised material (Tsang et al., 2004). Data gathered from the focus group confirmed that incentives can have an effect on the user's perception and attitude of push notifications. It was concluded that factors such as discounts, special offers, and time availability of specific products, all increase the attitude of consumers towards notification practices and positively attract the attention of the receiver. Incentives and stimuli tactics are widely used in physical in-store retailing (Dawson & Kim, 2009). It is impossible to transfer external cues, which physical shoppers are subjected to, onto its online counterpart and as a result tactics such as sales promotions are used to trigger impulse buying behaviour (Xu & Huang, 2014). In the same manner that stimuli tactics trigger in-store shoppers to act impulsively, online cues also trigger impulsivity in online shoppers. The results from the focus group confirm that notifications laced with incentives or incentive connotations do trigger impulsive buying behaviour. However, the data also concludes that consumers still react to incentives and impulsivity in different ways which may be attributed to mobile commerce’s relative young age compared to electronic commerce and due to concerns over user privacy and security.
6. Conclusion

This paper has investigated the attitude of consumers towards push notifications as a marketing tool for the promotion of marketing related material directly to smartphone users. Our findings pose that this marketing practice brings plenty of benefits with it such as the ability to reach consumers directly and, at times, evoke impulsive buying behaviour. However, marketers should keep in mind that, if not used correctly, push notifications may have an adverse and often irreversible effect. As our data shows, organisations should clearly define the parameters for such practices and properly investigate their consumer segments in order to successfully reach a targeted consumer segment. Failing to fulfil the criteria proposed in this paper will lead to a negative attitude in the consumer toward the material marketed; prompting smartphone users to either ignore the content or discontinue usage of the particular application pushing the notifications.

The chapters found here within identify several factors related to push notifications that affect not only the consumer’s attitude towards this marketing tool but also the impulsive purchasing behaviour of consumers. Our data shows that the factors expanded upon in this paper, either independently or in combination with one another, all affect the smartphone user’s attitude towards push notifications. Some of these factors have the possibility to reinforce the receiver’s attitude towards such practices and some adversely affect consumer attitudes. The data presented in this paper shows that these negative side effects include factors such as privacy and security concerns, location tracking methods, user consent, the risk of flooding users with unsolicited or even irrelevant material, and so forth. These determinants are crucial in the shaping of consumer attitudes towards both the practice and the organisation. In addition, our data also shows that these factors can elicit impulse buying behaviour. When used correctly, push notifications have the ability to stimulate impulsivity in the receiver hopefully leading to an unexpected purchasing decision. Nonetheless, the authors conclude that the maturity of mobile commerce and its acceptance, or adoption, amongst consumers as an established retailing practice is still a crucial determinant in its expected expansion amongst the modern and connected consumers of today.
7. Reflection

The investigation found here within is a qualitative research providing insight into both push notifications and impulse buying behaviour. As a result the findings of this study are not generalizable past the population that was used to gather these results. The authors are fully aware of the fact the sample sized used for this investigation was too narrow. If it were not for the time constraints applied to this paper and the immense hardships we encountered with finding willing participants to partake in this study we could have reacted by either: 1) Dividing the focus group into two parts consisting of five members each and pooled into each group two out of the four participants that had previously made use of mobile commerce; or 2) Used the same approach but with a much larger group of participants in general allowing for upwards of two whole focus groups. For further research we would suggest the following. Although the data collected yielded valuable material, we suggest that it would be beneficial to use a mixed method approach by employing focus groups and a self-completed questionnaire. Firstly, the questionnaire could yield more quantifiable statistics on the benefits and setbacks of push notifications, whether the general attitude of consumers is negative or positive, whether each of the criterions analysed has an effect on individual consumer attitude and the overall effect of push notifications on impulse buying behaviour in mobile commerce consumers. Secondly, the questionnaire would stand as a basis for the factors investigated and could allow the focus groups to go into much larger detail. In terms of methodology, we would recommend to those who wish to elaborate upon this subject, to employ a deductive approach and narrative analysis to further expand on theories that are somewhat related to the scope of this particular papers.
8. References


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## 9. Appendix

### 9.1 Operationalization Table

<table>
<thead>
<tr>
<th>Concept</th>
<th>Theoretical Definition</th>
<th>References</th>
<th>Questions</th>
<th>Empirical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer behaviour</td>
<td>Consumer behaviour is described as the activities people undertake to obtain, consume, and dispose of goods and services. Consumer behaviour looks at the reasons behind purchasing and how consumers make decisions based on the resources available to them. By investigating these factors, organisations can develop strategies that might influence the consumer to perform certain actions. Consumer behaviour provides the basis for an attitudinal investigation.</td>
<td>Blackwell et al., 2007</td>
<td>Do the participants have their smartphones with them all the time?</td>
<td>All participants carry their smartphones with them. It is regarded as a private medium that rarely leaves their sight. Usage factors range between hedonic and utilitarian including texting, browsing, media, and social media.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bennett &amp; Kassarjian, 1972</td>
<td>How do the participants feel about being constantly accessible through their smartphones?</td>
<td>The accessibility generated by smartphones is regarded as positive in terms of safety on an individual level. However, accessibility increases user stress level and therefore has negative setbacks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schiffman &amp; Kanuk, 2004</td>
<td>How do the participants feel about being constantly accessible by companies through their smartphones?</td>
<td>The accessibility generated by smartphones from an organisational perspective is largely regarded as negative and viewed as an intrusion upon consumer’s privacy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ajzen &amp; Fishbein, 1980</td>
<td>How do the participants feel about have the ability to access all sorts of information through their smartphones?</td>
<td>The participants regard themselves as late adopters of trends and need convincing to welcome new technologies. This might have an effect on the overall adoption of m-commerce.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rook &amp; Fisher, 1995</td>
<td>Do the participants consider themselves to be followers of trends?</td>
<td>Only 4 out of 10 participants have conducted purchases through their smartphones. Those that have used mobile commerce find it safe. Those that have not made use of mobile commerce consider trustworthiness, security and privacy as critical factors in their negative attitude towards this form of retailing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jeffrey &amp; Hodge, 2007</td>
<td>How do the participants feel about conducting purchases through their mobile phones? Do they feel secure?</td>
<td>Participants feel largely negative over giving away private information, such as bank details, via their smartphones. This is attributed to the device’s lack of security features. However, information such as user patterns is not regarded as an area of concern.</td>
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<td></td>
<td></td>
<td>Pavlou &amp; Fygenson, 2006</td>
<td>How do the participants feel about divulging private information about themselves when browsing or purchasing online via their mobile devices?</td>
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<tr>
<td>Concept</td>
<td>Theoretical Definition</td>
<td>References</td>
<td>Questions</td>
<td>Empirical Results</td>
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<tr>
<td>Mobile commerce and push marketing</td>
<td>Mobile commerce is presented as a subset, or extension, of electronic commerce. Through mobile commerce, consumers are able to perform transactions through the World Wide Web at anytime, anywhere effectively removing geographical constraints. Wireless communication devices (i.e. smartphones) have facilitated m-commerce, are part of the daily lives of billions of people, and are considered highly personal instruments. The m-commerce dimension is growing, expected to have an equal to or larger impact than e-commerce. M-commerce uniqueness is its ubiquity, convenience, localisations, instant connectivity, and personalisation. M-commerce on smartphones has allowed for proactive marketing, where marketers can push marketing related material directly to smartphone users without their request.</td>
<td>Chong, 2013 Ramaswamy, 2013 Taylor, 2014 Shua, 2014 Drossos et al., 2013 Wilken &amp; Sinclair, 2009 Khalifa et al., 2013 Zhang et al., 2013 Cao et al., 2015 Unni &amp; Harmon, 2009 Barwise &amp; Strong, 2002</td>
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<td></td>
<td>Have the participants received mobile ads on their smartphones?</td>
<td>The familiarity of push marketing was high amongst the participants and all had received several such as on their smartphones.</td>
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<td></td>
<td>Are the participants familiar with shopping online – via Websites or applications on their smartphones?</td>
<td>The familiarity with browsing retailers websites was high, although purchases made via smartphones was low. Trustworthiness and security were the main reasons which affected the willingness of many participants to make use of mobile commerce and furthermore to give away private information. The participants were aware of the fact that they are willingly giving away private information about themselves.</td>
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<td>Have the participants given away private information about themselves in order for a firm to use this information to target advertisements?</td>
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<td>Are the participants aware that they are giving away private information for marketing purposes?</td>
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<td></td>
<td>What are the participants general attitudes towards pushed marketing advertisements?</td>
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<td>What kind of ads do the participants perceive as positive/negative? Which factors create a positive/negative experience/response?</td>
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<td>How do the participants perceive ads from retailers/apps that have received permission to push advertising material! What about if they have not asked for their consent?</td>
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<td>How many ads per week/day do the participants consider an adequate or acceptable amount?</td>
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<td>How do the participants feel about receiving too many notifications? Does this have an effect on their view of a product/company?</td>
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<td></td>
<td>Does the content and frequency of the notifications have an influence on the participants view on the product/company? If so, in what way?</td>
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<td>What products have been pushed in notifications?</td>
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<td>Do the participants perceive the notification differently depending on the product promoted?</td>
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<td></td>
<td>How do the participants feel about receiving notifications from an unknown brand vs. a known brand? Is the content perceived differently?</td>
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<td>The frequency of notifications was inconclusive, although factors such as incentives, content, and consent all affected the attitude towards this practice. The interest of the consumer in the product advertised was also of importance. These factors were also important in terms of whether it originated from a well-known or new brand. All these factors, either independently or in combination with one another, affected impulsivity and attitude.</td>
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</table>
# Consumer Attitudes towards Push Notifications

<table>
<thead>
<tr>
<th>Concept</th>
<th>Theoretical Definition</th>
<th>References</th>
<th>Questions</th>
<th>Empirical Results</th>
</tr>
</thead>
</table>
| Push notifications | Marketers have employed various approaches to marketing with the end goal of appealing to individual consumers. Push notifications on smartphones reach the attention of the user and can instigate impulse purchasing behaviour. In technological terms a push notification is the delivery of information or alerts from a software application to a handheld device without the specific request of the user. The primary purpose of a push notification is to get the user back into the smartphone or into the specific applications/website. | Taylor, 2014  
Kannan, 2013  
Ticklye, 2014  
Warren et al., 2014  
Moore, 2014  
Wilken & Sinclair, 2009  
Barwise & Strong, 2002 | What type of push notifications have the participants received?  
When receiving a push notification from a company, what are the participants' general reactions/thought?  
Are the participants familiar with mobile advertisements/push notifications on smartphones?  
From what applications are the participants most used to getting push notifications from?  
How do the participants feel about receiving push notifications on their smartphones? Is the attitude positive or negative?  
What factors are determinants in triggering the interest of the participants?  
What factors make the notifications appealing?  
What kind of offers, or content, influences the participants to continue to receive notifications?  
What factors influence a positive or negative attitude towards push notifications?  
What factors can elicit impulse buying behaviour via smartphones from notifications? | The most common type of push notification participants received are from messages and social media related applications. Receiving notifications from a company, in general, was considered negatively. The attitude increased slightly if the participants gave permission or consent for the notifications and furthermore if the message was appealing. All participants were familiar with push notifications and frequently receive them from an assortment of applications. Incentives and other motivational factors such as content appealing and relevant content were crucial in drawing the attention of the participants. A combination of factors increased the attitude of consumers towards this tool and could furthermore elicit an impulse buying decision. |
## Consumer Attitudes towards Push Notifications

<table>
<thead>
<tr>
<th>Concept</th>
<th>Sub-concept</th>
<th>Theoretical Definition</th>
<th>References</th>
<th>Questions</th>
<th>Empirical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Appealing to rationality and emotions</td>
<td>Notifications, or messages, are either rational or emotional. Rational information relates to factual information, either objective or utilitarian, whereas emotions contribute to the development of brand personality. When the brand is established, consumers prefer emotionally appealing information, as opposed to rational information when the brand is unknown.</td>
<td>Drossos et al., 2013</td>
<td>The questions presented in this paper, within the concepts of consumer behaviour, mobile commerce, impulse purchasing, etc., all ultimately relate to these seven influential factors (or sub-concepts) mentioned here.</td>
<td>Rational messages, containing either objective or utilitarian information, promoting unknown products increases attitude. Emotional messages promoting known brands are partially positive or negative depending on the individual (inconclusive). Emotional or rational notifications can definitely lead to an impulse purchase.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Localisation</td>
<td>The localisation features in smartphones allows for the specific targeting of smartphone users based on their location.</td>
<td>Cao et al., 2015; Zhang et al., 2013; Chong, 2013; Drossos et al., 2013</td>
<td></td>
<td>Localisation features are largely regarded as negative and decrease the attitude towards push notifications. Small fraction of data supports impulsivity.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Consumer involvement with product advertised</td>
<td>The level of involvement of the consumer with the product advertised affects how the consumer’s attitude is towards the tool.</td>
<td>Drossos et al., 2013; Kannan, 2001; Behe et al., 2015</td>
<td></td>
<td>Positive attitudes elicited with high cognitive inv. products and low affective inv. products. Low inv. product can elicit impulsivity compared to high inv.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>User consent and privacy</td>
<td>Smartphone users are largely concerned with the lack of privacy and security in the devices. This will affect their attitude towards notifications and impulsivity. User consent to receive targeted marketing material from companies is crucial in the building of a positive attitude.</td>
<td>Chong et al., 2013; Zhang et al., 2013; Barwise &amp; Strong, 2002; Izquierdo-Yusta et al., 2014</td>
<td></td>
<td>Users are concerned with privacy which decreases attitude and impulsivity. This also relates to the consent of the user to receive such notifications.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Notification content</td>
<td>The content of the notifications must appeal and apply to the preferences of the recipient. Irrelevant material will negatively affect the attitude of the consumer and diminish the chances of an impulse purchase.</td>
<td>Barwise &amp; Strong, 2002; Drossos et al., 2013</td>
<td></td>
<td>Content of notifications can increase individual attitude towards push notifications. It can furthermore increase the likelihood of an impulse purchase.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Frequency of notifications</td>
<td>The frequency of notifications pushed to a smartphone user will affect the consumers attitude towards notifications and impulsive buying behaviour.</td>
<td>Barwise &amp; Strong, 2002; Izquierdo-Yusta, 2014</td>
<td></td>
<td>The frequency of notifications will negatively affect attitude. Results on whether frequency will have any perceptible effect on impulsivity are inconclusive.</td>
</tr>
<tr>
<td>Factors influencing consumer attitudes and impulse purchasing</td>
<td>Incentives</td>
<td>There is a positive correlation between incentives and the willingness of participants to receive push marketing related material. Incentives can furthermore elicit impulsivity in the recipient.</td>
<td>Tsang et al., 2004; Dawson &amp; Kim, 2009; Xu &amp; Huang, 2014</td>
<td></td>
<td>Incentives can trigger impulsive buying behaviour, although individuals react differently to such incentives. Furthermore, incentives do affect the consumer’s attitude towards push notifications.</td>
</tr>
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</table>
## Concept

**Impulse purchasing**

Consumers can exhibit two forms of purchasing, both within the offline and online dimensions: on one hand a detailed and thoughtful process (i.e. planned) and on the other a spontaneous and erratic purchasing process (i.e. impulsive).

With the arrival of mobile commerce, impulsive buying has become easier due to the accessibility and ubiquity generated by wireless communication devices, allowing smartphone users to purchase remotely from anywhere and anytime at their own convenience.

Purchasing impulsivity is generally more applicable to products of low involvement.

Mobile consumers are largely prone to exhibit impulsive buying behaviour when subjected to low involvement products.

A multitude of stimuli (or cues) are used to trigger impulsive behaviour in in-store consumers. These cues are generally not transferable to the online dimension. However, marketers make use of other stimuli (such as discounts, delivery, payment process, and other incentives) to actively try to solicit such behaviour in online shoppers whether they originate from electronic commerce or mobile commerce.

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<table>
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<th>Questions</th>
<th>Empirical Results</th>
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</thead>
</table>
| Impulse purchasing | Consumers can exhibit two forms of purchasing, both within the offline and online dimensions: on one hand a detailed and thought out process (i.e. planned) and on the other a spontaneous and erratic purchasing process (i.e. impulsive). With the arrival of mobile commerce, impulsive buying has become easier due to the accessibility and ubiquity generated by wireless communication devices, allowing smartphone users to purchase remotely from anywhere and anytime at their own convenience. Purchasing impulsivity is generally more applicable to products of low involvement. Mobile consumers are largely prone to exhibit impulsive buying behaviour when subjected to low involvement products. A multitude of stimuli (or cues) are used to trigger impulsive behaviour in in-store consumers. These cues are generally not transferable to the online dimension. However, marketers make use of other stimuli (such as discounts, delivery, payment process, and other incentives) to actively try to solicit such behaviour in online shoppers whether they originate from electronic commerce or mobile commerce. | Blackwell et al., 2001  
Behe et al., 2015  
Kennan et al., 2001  
Jeffrey & Hodge, 2007  
Verhagen & van Dolen, 2011  
Zhang et al., 2013  
Chong, 2013  
Beatty & Ferrell, 1998  
Dawson & Kim, 2009  
Xu & Huang, 2014 |  | - Have the participants bought products promoted via notifications? If so, what?  
- What factors made the participants want to visit the application in order to investigate the notification further?  
- Have the participants purchased products after being subjected to notifications? What about notifications with incentive connotations?  
- Are the participants likelier to perceive push notifications as positive if they contain incentives?  
- Are the participants likelier to tolerate a large number of push notifications if they contain incentives?  
- Are the participants likelier to continue to receive notifications if they contain incentives? And are they likelier to repeat purchases?  
- What types of incentives (coupons, discounts, etc.) made the participants interested in the notification and increased willingness to look it up further? What types made them actually purchase a product?  
- In which occasions do the participants normally purchase products (i.e. when bored, etc.)?  
- When bored, do push notifications with incentives trigger purchasing?  
- Do the participants ever purchase low/high inv. products online?  
- How do the participants feel about localised notifications? Do they lead to purchasing decisions? Have the participants purchased products impulsively in-store when subjected to localised notifications? And if not; would they? How did the localised notifications make participants feel? What reaction do such notifications elicit?  
- The majority of participants have not purchased products via their smartphones. The ones that have bought low involvement products.  
- The main reason for making use of mobile commerce was due to factors such as incentives, limited time offers, or discounts. Those participants that had previously purchased products via their smartphones had established trustworthiness with the retailer by searching for information on their official website through stationary technology.  
- Push notifications elicited impulsive buying behaviour due to limited time offers and discount connotations. The level of incentives provided either increased attitude towards push notifications positively or negatively and can elicit impulsive buying behaviour.  
- The mood, or state of mind, of the smartphone user has an effect on the perceptiveness and attitude of push notifications and impulsivity.  
- Low involvement products were more often bought on impulse in comparison to high involvement products.  
- Location-based push notifications are regarded as negative and intrusive. Especially if the consent of the user is not requested. Some positive aspects were seen such as the possibility to offer products based on time and convenience, eliminating the need to search for products and simplifying the shopping process. |
9.2 Summary of the Focus Group Proceedings

| Time /Location | 13th of May 2015  
The University Library, Linnaeus University, Växjö, Sweden |
<table>
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<td>Introduction</td>
<td>The partisans are being welcomed, introduction speech by the researchers and further formalities are presented</td>
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</table>
| Engaging/opening questions | Do you own a smartphone?  
                                    What do you use your smartphone for the most? (I.e. Browsing, SMS, calling, social media, shopping, etc.)  
                                    Have you ever browsed retailers online through your smartphone?  
                                    Have you ever purchased a product online through your smartphone?  
                                    Are you familiar with push notifications through smartphones? |
| Exploration | CONSUMER BEHAVIOUR AND SMARTPHONE USAGE:  
                                    Do the participants have their smartphone with them all the time? (INTERACTIVITY/LOCALISATION)  
                                    How do the participants feel about being accessible all the time through their smartphones by having it with them all the time? (INTERACTIVITY/LOCALISATION)  
                                    How do the participants feel about being reachable at any time given by a company? (INTERACTIVITY/LOCALISATION)  
                                    How do the participants feel about having the ability to have accessibility to all sorts of information at any time given through their smartphones? (INTERACTIVITY/LOCALISATION) (PERMISSION AND ACCEPTANCE)  
                                    Do the participants consider themselves as followers of trends? |
(PERMISSION AND ACCEPTANCE)

How do the participants feel about doing purchases through the mobile phone? Do they feel secure? (EMOTIONAL/RATIONAL)

How do the participants feel about giving away private information about themselves when browsing or purchasing online on the mobile phone? (PERMISSION AND ACCEPTANCE)

MOBILE COMMERCE:

Have the participants ever received mobile ads in the form of text messages on their smartphones? (INTRODUCTION)

Are the participants familiar with shopping online - via a company websites or an app on their smartphones? (INTRODUCTION)

Have the participants given away private information about themselves in order for a company to get hold on contact information and other personal information used for different forms of advertising? (PERMISSION AND ACCEPTANCE)

Do the participants realize that private information given to the company is used for marketing purposes? (PERMISSION AND ACCEPTANCE)

What are the participant’s general attitudes towards marketing advertisements in the form of text messages on smartphones? Why? (INTRO/GENERAL)

What kind of ads or text messages do the participants perceive as positive? Which factors create a positive experience/response? (CONTENT)

What kind of ads or text messages do the participants perceive as negative? Which factors create a negative experience/response? (CONTENT)

How do the participants perceive ads or text messages from e-retailers/applications that have gotten explicit permission to send them advertising material? (PERMISSION AND ACCEPTANCE)

How do the participants perceive ads or text messages from website e-retailers/applications that have NOT gotten explicit permission to send them advertising material (PERMISSION AND ACCEPTANCE)

How many advertisements per week/day do the participants consider as an adequate or acceptable amount? (FREQUENCY)
How do the participants feel about receiving too many notifications? Does this have an effect on how the participants view a brand/product/company? (FREQUENCY) (RATIONAL / EMOTIONAL)

Does the content and frequency of the message have an influence on how the participants view the brand? And if so, in what way? (FREQUENCY) (RATIONAL / EMOTIONAL)

Further - what product was promoted in the ad? (Objective or utilitarian product?) (RATIONAL / EMOTIONAL)

Do the participants perceive the ad/text message differently depending on what product is being promoted? (RATIONAL / EMOTIONAL) (CONTENT)

What do the consumers/ participants feels about receiving a mobile ad from a rather unknown brand VS. a well-known brand? Why? (CREDIBILITY)

Is the content perceived differently in a well an ad from a well-known brand VS. an unknown brand? Why? (CREDIBILITY)

**PUSH NOTIFICATIONS:**

What type of push notifications have the participants received? (INTRODUCTION)

When receiving a push notification from a company, what are the participant’s general reactions/thoughts? (EMOTIONAL/RATIONAL)

Are the participants familiar with mobile advertisements/push notifications received on smartphones? (INTRODUCTION)

Have the participants received push notifications on their smartphones and how often do the participants receive mobile advertising/push notifications on the same device? (FREQUENCY)

From what applications are the participants most used to getting push notifications from? (INTRODUCTION)

How do the participants feel about receiving push notifications on their smartphone? (ATTITUDE) (RATIONAEMOTIONAL)

What factors are determinants for the participants to actually look further into the message/promotion? What factors make the message
Consumer Attitudes towards Push Notifications

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interesting? (CONTENT) (EMOTIONAL / RATIONAL)

What kind of offers influences the participants to get back into the website of the e-retailer or application? (CONTENT)

**IMPULSE PURCHASING BEHAVIOUR:**

Have the participants actually bought a product that's been promoted in a text message / push notification? What type of product did the participants buy in that case? (INTRO/GENERAL)

What factors made the participants want to go to the e-retailer website or application in order to investigate the message further? (CONTENT) (EMOTIONAL/RATIONAL)

How many of the participants have entered a website or an app again with purpose to look up the received message further? (CONTENT)

Have the participants purchased a product by first receiving a push notification with a special offer? (INCENTIVES)

Are the participants likelier to perceive a push notification as positive if they receive a special offer / discount? (INCENTIVES)

Are the participants likelier to tolerate a larger number of push notifications if they receive a special offer / discount? (INCENTIVES)

Are the participants likelier to continue to receive push notifications if they receive a special offer / discount? And if so, are they likely to repeat purchases with that e-retailer? (INCENTIVES)

What types of incentives (coupons, discount, and product offerings) made the participants interested in the message and increased the willingness to look it up further? (INCENTIVES) (CONTENT)

What types of incentives actually made the participants to purchase product/products? (INCENTIVES) (CONTENT)

In which occasions do the participants normally purchase a product (i.e. when they are being bored = browsing around, travelling, in bed before sleeping) (USEFULNESS/ ACCURACY) (EMOTIONAL/RATIONAL)

When being in this state of mind (bored / browsing etc.) - does a push notification with an offer increase the chances of the participants to make a purchase? (USEFULNESS/ ACCURACY) (EMOTIONAL/RATIONAL) (INTERACTIVITY/LOCALISATION)
Do the participants ever purchase low involvement products (i.e. those that entail minimum effort and consideration) impulsively online? (LOW INVOLVEMENT) (IMPULSIVENESS) (COGNITIVE) (AFFECTIVE)

Do the participants ever purchase high involvement products (i.e. those that require long and careful considerations) impulsively online? (HIGH INVOLVEMENT) (IMPULSIVENESS) (COGNITIVE) (AFFECTIVE)

How do the participants feel about localised text messages? Has this lead to a purchasing decision? Have the participants walked into a store and bought a product that is promoted in a text localized ad on the mobile phone? And if not; would they? (LOCALISATION)

How did the localized message make you feel? What reaction did the message create? (PERMISSION/ACCEPTANCE) (RATIONAL/EMOTIONAL)

Final question

Do the participants consider themselves to be modern in the sense that you follow trends, in whatever trend that might be, like music or clothing, further are you quick to switch between trends in whatever sense?”